



LAW

ENGINEERING AND ENVIRONMENTAL SERVICES, INC.

**REPORT PREPARED
BY
RICHARD L. HATFIELD
RELATING TO THE
PRUDENTIAL INSURANCE COMPANY OF AMERICA,
ET. AL.
VS.
UNITED STATES GYPSUM COMPANY, ET. AL.
JULY, 1996**

Report of Inspection and Evaluation of Asbestos - Containing Materials

This report has been prepared by Richard L. Hatfield relating to The Prudential Insurance Company of America, et. al. vs. United States Gypsum Company, et. al., Civil Action Nos. 87-4227 and 87-4238 (HAA).

I obtained Bachelor of Science degrees in Experimental Statistics and Geology from North Carolina State University. I am employed as a consultant in my capacity as Assistant Vice President and Senior Corporate Consultant for Law Engineering and Environmental Services, Inc., Atlanta, Ga. I have been employed at Law since December, 1987. Prior to my employment at Law, I served as Director of Services for McCrone Environmental Services, Inc. for five years. I began my career relating to asbestos, serving as a Technical Field Advisor to the US Environmental Protection Agency's Asbestos in Schools Program. I was appointed as an expert advisor to the US Environmental Protection Agency's negotiated rule making committee to promulgate new regulations for asbestos in schools pursuant to AHERA (Asbestos Hazards Emergency Response Act).

During my years dealing with asbestos - related problems, I have been an instructor in over fifty (50) courses and seminars on asbestos in buildings. I have developed protocols for the collection and analysis of asbestos in settled dust of buildings with asbestos - containing building materials, and consulted with the US Environmental Protection Agency (EPA) and the American Society for Testing and Materials (ASTM) in establishing guidelines for these protocols. These protocols have been accepted by both the scientific and the legal community.

As a consultant, I have served hundreds of public and private building owners regarding the proper response they should make regarding the disposition of asbestos in their properties. As part of my consulting services I have acquired extensive experience in the field of identifying products by visual and microscopic examination of the materials and their components and in the field of collection and analysis of the amount and frequency of asbestos release from asbestos - containing building materials.

I have been qualified as an expert in numerous asbestos property damage cases in the fields of asbestos materials characterization which includes asbestos sampling and analysis by various microscopy techniques and asbestos management, including USG v. Admiral Insurance Co. et. al. 1994 WL 605841, Nov. 3 1994 and City of Greenville v. W.R. Grace & Co., 640 F. Supp. 559 (D.S.C. 1986), aff'd City of Greenville v. W.R. Grace & Co., 827 F.2d (4th Cir. 1987). Upon information and belief, the United States Court of Appeals for the Fourth Circuit relied upon my testimony about the asbestos contamination of the Greenville City Hall Building as proof of property

damage. (See attachment for listing of the last five years of deposition and court testimony.)

I have also participated in or reviewed a number of experiments and demonstrations involving asbestos - containing materials (ACM) in which either the asbestos - containing materials or their residue were disturbed during routine building operations and activities which resulted in the release of significant levels of airborne asbestos - containing dust. Measurements were made of either airborne or surface asbestos dust released during these operations. Such tests have demonstrated that significant numbers of asbestos fibers are released when these routine building operations and activities are undertaken. This release of asbestos fibers into the building's environment results in elevated airborne levels for some time and leads to the contamination of building and property surfaces with asbestos dust. For the purposes of this report, the word "contamination" is intended to convey the idea that the surfaces analyzed contain asbestos fibers to a degree far in excess of what would be expected on a surface which was not in proximity to an asbestos - containing material that was releasing asbestos fibers. In my experience in collecting, analyzing and reviewing thousands of dust samples such as the ones collected in this case, a dust sample taken from areas without asbestos - containing materials or some other identified source will reveal little to no contamination. Therefore, dust samples collected in the vicinity of an asbestos - containing material which reveal significant numbers of asbestos fibers demonstrate release from the material present in addition to demonstrating surface contamination.

Air sampling techniques can prove to be quite useful in measuring airborne asbestos concentrations during work practices which may disturb asbestos-containing materials, debris or dust. Ambient air sampling (sampling during times of no disturbance) can be quite misleading and are not good techniques to determine ACM's condition, or to make determinations as to levels of surface contamination. Ambient air sample results should not be used solely to make decisions about corrective actions since they do not provide sufficient information about airborne levels generated during many routine building activities. Defendants' representatives have collected a series of ambient air samples in and around these buildings. Some observations were made by myself and other Law personnel which would indicate that some of the sampling was not properly conducted. These observations included poorly placed sampling pumps, filters not positioned properly and equipment failure.

Asbestos fibers which are released from deteriorating ACM or from the disturbance of ACM will disburse into the ambient air within the buildings, settling on various surfaces in the building, contaminating various surfaces including furnishing, carpeting, draperies, supplies, books and other materials in buildings. The asbestos dust on these surfaces are subject to reentrainment into the air when this dust is disturbed during routine building activities. The reentrained fibers are as much of a concern as newly released asbestos fibers. The asbestos contamination will remain unless special cleaning procedures are employed to eliminate the asbestos - containing dust from non - porous surfaces or the proper removal and disposal of porous

materials, to which asbestos fibers customarily attach themselves. If ACM which is releasing asbestos fibers is left in areas where surfaces have been cleaned, these surfaces in time will become re-contaminated.

The dust sampling technique is accomplished by running a battery operated air sampling pump, equipped with a membrane filter cassette identical to those used in air sampling over a designated area of a surface. A nozzle fashioned from 1/4 inch diameter tubing is attached to the open nipple of the cassette cap (prior to August 1989 open face cassette). By operating the pump at 2 liters / minute the nozzle face velocity should be approximately 100 cm / second. The actual sample collection process involves delineating a surface area of interest. This is accomplished by measuring a selected area of at least 100 square centimeters. The size of the sampled area may also be measured after the collection is complete. Once the pump is activated, the nozzle is passed along the surface in a manner sufficient to vacuum up any settled dust. Light rubbing of the surface may be necessary to dislodge any lightly attached materials, hard rubbing is not necessary. The vacuuming should continue over the entire sample area until the operator is satisfied that all the dust which can be removed is removed. Upon completion, the sampling cassette should be turned upright and with the pump still running, the cap should be loosened and the nozzle removed and placed into the cassette. After replacing the cap, the pump may be turned off and the cap plug replaced to seal the cassette. These samples are documented as to their location, surface and area sampled, along with other pertinent project information. The filters are then transported to a laboratory for analysis.

The materials collected on the filter are then prepared for analysis under the electron microscope. The microscopist identifies and quantifies asbestos fibers in the microscope grid opening and reports the findings in fibers per unit area such as fibers per square centimeter or fibers per square foot using a mathematical calculation.

Having developed the use of dust sampling to make determinations about asbestos fiber release and contamination in the 1980's, I have followed the development of this sampling and analysis technique to present. To my knowledge, there has been only one significant change to the collection process and none to the analysis process. This collection change occurred about mid-1989 following the EPA's dust sampling workshop. Prior to this workshop surface dust samples were collected using an open face cassette. After making some determinations as to the collection efficiency of the open face cassette versus the use of close face cassette equipped with a sampling nozzle, I made the recommendation to the workshop that future sampling be conducted using the nozzle rather than the open face cassette, which was accepted and incorporated in EPA's method. Upon return from the workshop approximately August 1, 1989, I instructed Law personnel to begin using the nozzle for sampling. This is the sampling equipment described in the current ASTM protocol. As part of their work on this case, Compass Environmental collected pair samples using both collection methods. Based on the analytical data generated by this study, one must conclude the open face cassettes were less efficient in the collection of the asbestos dust. On the

average, the open face cassettes collected only 10 percent of the samples now collected using the nozzle equipped cassette.

The following table illustrates the results of the study.

Comparison of Open Face (PR) verses Nozzle Cassettes

	Building	AB (Nozzle) *	PR (Open Face) *	Factor
1	Renaissance Tower	7.7 Billion	1.8 Billion	4.28
2	Pru Plaza (Newark, NJ.)	8.8 Billion	467 Million	18.9
3	Embarcadero 1	770 Million	229 Million	3.36
4	Embarcadero 2	5.5 Billion	625 Million	8.78
5	5 Penn Center	8.5 Billion	525 Million	16.19
* Average per sq. ft. asbestos levels from three samples in each building			Total	51.51
			Average	10.3

As requested, I and other Law personnel have inspected and collected samples of various asbestos - containing materials and dust samples in the buildings which are the subject of this litigation. Law personnel also accompanied defendants' representatives during their inspections. During most of these visits, reports, photographs and, in some cases, video tape documentation were generated. The subject asbestos-containing materials in these buildings are friable fireproofing which is generally sprayed on to steel beams, columns and floor decking.

The inspection process included a physical examination of the materials to determine the presence, location and use of the materials in the buildings and a determination of conditions. The level of contamination was measured in most of the facilities by the collection and analysis of dust samples. The findings of the inspection and sample collection were documented in various forms including reports, notes, logs, 35 mm photographs and video tape.

In some cases demonstrative activities were conducted and video taped to show how certain activities such as opening and closing a ceiling tile or disturbing the asbestos - containing materials release asbestos. These videos clearly demonstrate when asbestos - containing dust and debris or the in place asbestos-containing materials are disturbed, asbestos-containing dust becomes airborne and results in contaminating surfaces below. These videos make use of a lighting technique referred to as the Tyndell light effect to illuminate any airborne particles. This lighting effect is the same as the observation of airborne dust through a stream of sunlight through a window. Dust samples were taken on the top of surfaces above the ceilings prior to the demonstrations and from the plastic covered floor following the demonstrations. These samples demonstrate that asbestos - containing dust was disturbed and that typical maintenance activities result in contaminating surfaces below. For safety, these

demonstrations were conducted in contained areas to prevent the spread of the released asbestos and were thoroughly cleaned following the demonstrations.

The following table illustrates the results of the dust samples collected before and after the video demonstrations.

	Building	Above Ceiling (Before) *	Floor Below (After) *
1	Prudential Plaza (Newark, NJ.)	18.9 Billion	11.5 Billion
2	5 Penn Center	6.7 Billion	8.8 Billion
3	Embarcadero Center 1	37.8 Billion	14.8 Billion

* Sample results listed above are asbestos structures per sq. ft.

In addition to the general information above, I will also testify about the collection, analysis and interpretation of the dust samples collected at the Prudential buildings by both Compass Environmental and Law Companies.

The general findings are listed below.

1. The overall asbestos control programs are in place and functioning.
2. Since their discovery, a significant amount of the ACM has been removed. Some areas of the ACM have been encapsulated or enclosed, while other areas of the remaining materials have been repaired or patched under the O&M programs and will require continuous monitoring until such time as they are removed.
3. In general, friable ACMs can be classified in the following conditions. Materials which appear in good condition display very little damage (less than 1%), no asbestos - containing debris is present and conditions exist where only slight or no contamination is or should be present. Materials described as in fair condition indicates some damage was observed (1 - 10%), some asbestos - containing debris is present and levels ranging from moderate to extreme contamination would likely be or is present. Poor condition materials have significant damage (greater than 10% overall), significant amounts of asbestos - containing debris present and heavy to extreme levels of contamination very likely to be or are present. These condition categories are consistent with as AHERA's (Asbestos Hazards Emergency Response Act) damaged categories of no damage, damaged, and significantly damaged ACM. Additionally, AHERA use the potential for damage to add two additional categories, potential for damage and potential for significant damage. Generally, current conditions are the best indication of a material's potential for damage, unless there are

indications of future changes in the material's environment which would either increase or decrease the material's potential for damage.

4. The remaining materials located in the Prudential buildings are generally in a fair condition with some areas in poor condition. Additional areas of materials were observed in poor condition prior their to removal.
5. The conditions of the fireproofing in the Prudential buildings were generally a result of water damage, air erosion, vibration, building movement, physical contact causing abrasions, scratches, and gouges, delamination of materials due to the loss of either cohesion or adhesion, and cracking. --
6. Nearly all of the dust samples collected and analyzed established some level of contamination; many samples demonstrated levels of contamination in excess of one (1) billion asbestos structures per square foot (extremely contaminated). Generally, as one might expect, the dust samples taken in closer proximity of the ACM resulted in the higher levels of contamination.
7. All of the building personnel encountered during the inspections were aware of the presence of the asbestos materials in their buildings.

Building Specific Information and Opinions

1. Prudential Plaza Denver, Co. - The fireproofing materials where located in the two low rise buildings A and B. These buildings were inspected by myself in 1988 and the fireproofing materials were observed in fair condition. During this visit ten dust samples were collected in various locations in each building. The analytical results of these dust samples demonstrated fiber release, and contamination. The results ranged from BDL (Below Detectable Limit) to 1.1 billion asbestos structures per square foot. Note that these dust samples were collected using the open face method and should be considered conservative. It is my opinion that the subject fireproofing in this building released asbestos fibers and debris and caused contamination in this building.
2. Century Center Atlanta, Ga. - In 1988 Law personnel collected ten dust samples throughout the 2200 building. The analytical results of these dust samples ranged from 1.1 million to 11.7 billion asbestos structures per square foot. Note that these dust samples were collected using the open face method and should be considered conservative. This material was in fair to poor condition. Eight dust samples were collected in the 2600 building and resulted in 303 thousand to 19.1 billion asbestos structures per square foot. Note these dust samples were collected using the open face method and should be considered conservative. This material was also in fair to poor condition. It is my opinion that the subject

fireproofing in these buildings released asbestos fibers and debris and caused contamination in these buildings.

3. Embarcadero One San Francisco, Ca. - In 1988 fifteen dust samples were collected during an inspection. The results of these early dust samples ranged from BDL to 7.9 billion asbestos structures per square foot. Note these dust samples were collected using the open face method and should be considered conservative. In 1995, I made an additional inspection of the materials remaining in the building and found them in fair to poor condition. During this inspection I collected four additional dust samples, which, when analyzed, resulted in 7.7 billion to 11.3 billion asbestos structures per square foot. Additionally, 3 dust samples collected by Compass Environmental also confirmed the presence of asbestos contamination at levels between 501 million to 1.2 billion asbestos structures per square foot. It is my opinion that the subject fireproofing in this building released asbestos fibers and debris and caused contamination in this building.
4. Embarcadero Two San Francisco, Ca. - In 1988, nine dust samples were collected throughout the first eleven floors where the asbestos - containing fireproofing is located. The results of these samples showed a contamination level of BDL to 89 million asbestos structures per square foot. Note these dust samples were collected by the open face method and should be considered conservative. During a 1994 inspection by Law personnel, seven additional dust samples were collected, of which three were analyzed. The results indicated contamination levels between 1.8 billion and 5.1 billion asbestos structures per square foot. I also inspected this building during my 1995 visit and collected three additional dust samples. These samples resulted in contamination levels between 2.4 billion to 25.4 billion asbestos structures per square foot. Additionally, three dust samples collected by Compass Environmental also confirmed the presence of asbestos contamination at levels between 567 million to 12.8 billion asbestos structures per square foot. The fireproofing materials in this building should be considered in fair to poor condition. It is my opinion that the subject fireproofing in this building released asbestos fibers and debris and caused contamination in this building.
5. First Florida Tower Tampa, Fla. - During a 1988 inspection by Law personnel the in place asbestos - containing fireproofing appeared in good condition but fine debris was observed. Eleven surface dust samples were collected from various locations in the building. These samples, when analyzed, demonstrated contamination levels from BDL to 729 millions asbestos structures per square foot. Note these dust samples were collected using the open face method and should be considered conservative. In 1995, I inspected the remaining asbestos- containing fireproofing and collected four additional dust samples. These dust samples showed a contamination level of between 1.1 billion and 36.8 billion asbestos structures per square foot. Most of the remaining asbestos - containing fireproofing was observed in rather poor condition. It is my opinion

that the subject fireproofing in this building released asbestos fibers and debris and caused contamination in this building.

6. Chatham Center/Hyatt Pittsburgh, Pa. - Reports from consultants indicated that the fireproofing located in the first ten floors showed signs of damage. These conditions were confirmed by a 1988 inspection by Law personnel. During this inspection nine dust samples were collected. The results of these dust samples demonstrated levels of contamination between 67.4 thousand and 75 million asbestos structures per square foot. Note these dust samples were collected using the open face method and should be considered conservative. It is my opinion that the subject fireproofing in this building released asbestos fibers and debris and caused contamination in this building.
7. 5 Penn Center Philadelphia, Pa. - Reports by asbestos consultants indicated that the asbestos - containing fireproofing was damaged and deteriorating and became airborne when disturbed. Inspection of the fireproofing by Law personnel confirmed these conditions and five dust samples showed contamination levels between 149 thousand and 85 million asbestos structures per square foot. Note these dust samples were collected using the open face method and should be considered conservative. An additional inspection by myself of the remaining material on the 35th floor revealed asbestos - containing fireproofing in very poor condition with much delamination of the fireproofing and debris observed. Five additional dust samples obtained during this inspection revealed contamination levels between 2.7 billion to 9.1 billion asbestos structures per square foot. Additionally, 3 dust samples collected by Compass Environmental also confirmed the presence of asbestos contamination at levels between 4.1 billion to 13.1 billion asbestos structures per square foot. It is my opinion that the subject fireproofing in this building released asbestos fibers and debris and caused contamination in this building.
8. 130 Johns St. New York, NY. - The asbestos - containing fireproofing in this building is applied primarily to the structural columns of the building. However, the fireproofing is accessible above the drop ceiling at the top of the columns, at certain exterior columns and in mechanical spaces. During a 1988 inspection by Law personnel, areas of fireproofing were observed damaged fireproofing and resulting debris was observed. Eleven surface dust samples and a HVAC pre-filter sample were collected during this visit. The resulting analyses indicated contamination levels ranging from BDL to 26.3 million asbestos structures per square foot. Note these dust samples were collected using the open face method and should be considered conservative. In 1995 I inspected this facility and observed material in fair to poor condition. I collected an additional four dust samples. These samples indicated contamination levels between 1.0 billion and 24.3 billion asbestos structures per square foot. It is my opinion that the subject fireproofing in this building released asbestos fibers and debris and caused contamination in this building.

9. Hunt Valley Marriott, Hunt Valley, Md. - During inspections by asbestos consultants, the fireproofing materials were observed in damaged and deteriorating conditions. Law personnel inspected the facility in 1988 and confirmed similar observations. During Law's inspection, six surface dust samples and a HVAC pre-filter sample were collected. The ensuing analysis indicated contamination levels between BDL and 2.1 billion asbestos structures per square foot. Note these dust samples were collected using the open face method and should be considered conservative. It is my opinion that the subject fireproofing in this building released asbestos fibers and debris and caused contamination in this building.
10. 1100 Milam, Houston, TX. - Law personnel inspected this facility in 1988 and observed some of the fireproofing in damaged condition. During this inspection fifteen dust samples were collected throughout the building. The results of these dust samples demonstrated contamination levels between 1.7 million and 5.7 billion asbestos structures per square foot. Note these dust samples were collected using the open face method and should be considered conservative. It is my opinion that the subject fireproofing in this building released asbestos fibers and debris and caused contamination in this building.
11. Northland Towers, Southfield, Mi. - Law personnel inspected the tower buildings in 1988. During the inspection the asbestos - containing fireproofing was observed in fair condition with some areas in poor condition. Six dust samples were collected from the East and West towers. These dust samples had asbestos concentrations between 78 thousand and 40 million asbestos structures per square foot. Note these dust samples were collected using the open face method and should be considered conservative. These conditions were confirmed visually by my inspection in 1996 and by three additional dust samples collected in the West Tower and three additional dust samples collected in the East Tower by Compass Environmental. The results of these samples ranged from 2 billion to 5.9 billion asbestos structures per square foot in the West Tower and from 186.5 million to 3.1 billion asbestos structures per square foot in the East Tower. It is my opinion that the subject fireproofing in these buildings released asbestos fibers and debris and caused contamination in these buildings.
12. Northwest Financial Building, Bloomington, MN - During a 1988 inspection by Law personnel the in place asbestos - containing fireproofing appeared in good condition but fine debris and dust were observed. Fifteen dust samples were collected during this inspection. The results of the dust samples indicated contamination levels which ranged from BDL to 2.6 billion asbestos structures per square foot. Note these dust samples were collected using the open face method and should be considered conservative. It is my opinion that the subject fireproofing in this building released asbestos fibers and debris and caused contamination in this building.

13. Prudential Plaza, Newark, NJ - Law personnel inspected the fireproofing in the mall area and observed delamination and debris present on tops of ceiling tiles. The fireproofing in the office building was observed and dust samples were collected. The results were between BDL and 437 thousand asbestos structures per square foot. In 1995 I inspected the mall areas and the 5th floor of the office complex. I observed the fireproofing in the mall areas to be in fair to poor condition with much debris in many areas. I also inspected the asbestos - containing fireproofing on the 5th floor of the office complex. This material was in poor condition. During my inspection seven dust samples were collected from both areas. The results of these dust samples indicated contamination levels between 1.1 billion to 26.6 billion asbestos structures per square foot. Additionally, 3 dust samples collected by Compass Environmental also confirmed the presence of asbestos contamination at levels between 2.2 billion to 21.7 billion asbestos structures per square foot. It is my opinion that the subject fireproofing in this building released asbestos fibers and debris and caused contamination in this building.
14. Renaissance Tower, Dallas TX - Law personnel inspected the building in January of 1989. Observations of fireproofing debris and dust were made. Nine surface dust samples were collected and analyzed. The results indicated contamination levels between BDL and 10.9 billion asbestos structures per square foot. Note these dust samples were collected using the open face method and should be considered conservative. An additional inspection was made by Law personnel in 1996 and confirmed the condition of the remaining fireproofing in fair condition. Additionally, three dust samples collected by Compass Environmental confirmed the presence of asbestos contamination at levels between 2.2 billion to 17.0 billion asbestos structures per square foot. It is my opinion that the subject fireproofing in this building released asbestos fibers and debris and caused contamination in this building.
15. Southdale Office Complex, Edina, MN - In February of 1989 Law personnel inspected the complex and observed fireproofing debris and dust. During the inspection seven dust samples were collected. the analysis of these dust samples indicated contamination levels between BDL and 13.9 billion asbestos structures per square foot. Note these dust samples were collected using the open face method and should be considered conservative. Some air samples were taken during an operations and maintenance procedure which demonstrated elevated airborne concentrations. It is my opinion that the subject fireproofing in this building released asbestos fibers and debris and caused contamination in this building.
16. Twin Towers, Atlanta, GA - Inspections by Law personnel in 1986 and in 1989 observed fireproofing materials in poor condition, with much dust and debris on surfaces below. This condition was confirmed by my inspection in 1995 of the remaining fireproofing on the 21st floor. Four dust samples collected on this floor shows contamination levels between 9.5 billion to 28.3 billion asbestos

structures per square foot. It is my opinion that the subject fireproofing in these buildings released asbestos fibers and debris and caused contamination in these buildings.

17. Brookhollow, Dallas TX - The asbestos - containing fireproofing was removed in 1986 and 1987 prior to occupancy by a new tenant.
18. Short Hills Office Complex, Short Hills, NJ - The asbestos - containing fireproofing was removed in 1984 prior to demolition of the building.

While the mere presence of asbestos - containing materials in a building does not necessarily mean asbestos fibers are being released or that there is an immediate health hazard present, its presence does present a continuing potential for the release of asbestos fibers into the building's environment and a potential for a health hazard. When asbestos materials are present and these materials have and are being disturbed or are deteriorating, asbestos fibers are being released into the air and on to surfaces below. This dust can, in turn being reentrained by the building maintenance staff, outside service personnel and some of the general building occupants. The U.S. EPA believes, as I do, that an increased exposure to asbestos results in an increase in occurrence of asbestos - related diseases. It was obvious from the inspections that the asbestos - containing materials in these buildings have and are continuing to release asbestos due to their presence, condition, activities and the building dynamics, despite reasonably good asbestos control programs. The asbestos - related problems and the asbestos contamination will continue until such time as the accessible, friable asbestos materials are removed.


Generally there are several ways to deal with in place ACMs. These include placing the materials under an Operations and Maintenance Program (O&M). This program is designed to control and minimize disturbance of the ACMs. While all ACM discovered in a building should be placed in an O&M program, only materials in good condition should remain in the program for an extended period of time. Sometimes an ACM is suitable for encapsulation or enclosure. These control methods are coating the ACM with a paint - like material or enclosing the ACM behind an air tight barrier. Both of these control methods should also be considered temporary and the treated ACM must still remain in the O&M program and under the watchful eye of the building's asbestos coordinator. The permanent solution to asbestos related - problems, is to remove the ACM and any contaminated materials which can not reasonably be cleaned, and replace them with new suitable non-asbestos containing materials.

The observations of the use, locations and conditions of the asbestos - containing fireproofing materials made during site visits of Prudential's buildings, the observed dust and debris on tops of ceiling systems and light fixtures coupled with the results of dust sampling conducted in various Prudential's buildings demonstrated building contamination and potential for exposure to airborne asbestos fibers. Additionally, given the location and conditions of the asbestos - containing fireproofing

materials, I would expect conditions and the problems to worsen in the future if not abated. Therefore the appropriate remedial action was to place the asbestos-containing fireproofing materials in an O&M program and schedule their removal and replacement. In my opinion, the corrective actions, in the above listed Prudential buildings were reasonable, appropriate and consistent with this approach.

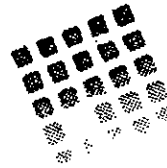
This report summarizes opinions and testimony which I intend to provide in this case. These opinions are based on my work in these buildings and other buildings around the country, training, experience, studies and research of myself as well as studies and research of others scientists, asbestos professionals and governmental agencies. Attached to this report are my Curriculum Vitae, a list of testimony, a list of documents of which I may rely or use as exhibits, and a list of compensation rates.

Signed

A handwritten signature in cursive script, reading "Richard L. Hatfield". The signature is written in dark ink and is positioned above the printed name.

Richard L. Hatfield

July, 1996



Prudential Dust Project Century Center

Summary of Results of Analyses by Transmission Electron Microscopy (TEM)

Client Name: Law Engineering/Atlanta
 Client Job Number/Name: A88-120.18, Century Center
 MAS Project Number: M2140

Client Sample Number	MAS Sample Number	Sample Location	Total Asbestos Structures Counted	Total Asbestos Structures Per Sq. Ft.
Building 2200				
1	M2140-1	Carpet Sample, Suite 90, File Storage Room Floor	18	1.996E+06
2	M2140-2	Dust sample, Suite 90, File Storage Room Shelves	30	2.325E+07
3	M2140-3	Carpet Sample, Suite 660, Paper Storage Room	91	1.497E+08
4	M2140-4	Dust Sample, Suite 650, Top of Kitchenette Cabinets	3	2.509E+06
5	M2140-5	Carpet Sample, 5th Floor Lobby, Entrance to Men's Bathroom	17	1.119E+06
6	M2140-6	Dust Sample, Suite 532, Top of Brown Phone Switching Box	22	2.177E+08
7	M2140-7	Dust Sample, 4th Floor Air Handler, Horizontal Surface above intake filters	91	1.194E+09
8	M2140-8	Dust Sample 3rd Floor Air Handler, Horizontal Surface above intake filters	107	1.172E+10
9	M2140-9	Dust Sample, Suite 220, Top of Isotec Switchbox	48	1.153E+08
10	M2140-10	Carpet Sample, First Floor, Intersection of Elevator Lobby and Main Lobby	26	4.264E+06
Building 2600				
11	M2140-11	Dust Sample, 4th Floor South Center Room, Back of Ceiling Tile	124	1.026E+10
12	M1240-12	Dust Sample, 4th Floor Air Handler Room, Top of Duct	100	3.878E+08
13	M2140-13	Dust Sample, 3rd Floor Air Handler Room, Top of Dust	94	5.953E+08
14	M2140-14	Carpet Sample, Suite 375 Left Rear Corner	62	5.215E+07
15	M2140-15	Dust Sample, Basement Mechanical Room, Top of Breaker Box	93	1.907E+10
16	M2140-16	Carpet Sample, Basement Mechanical Room Office Behind Door	39	2.825E+07
17	M2140-17	Carpet Sample, 1st Floor Lobby, West Side Base of Steps	3	3.026E+05
18	M2140-18	Carpet Sample, Service Elevator, Left Front Corner	10	7.959E+06



COPY
MATERIALS
ANALYTICAL
SERVICES

September 27, 1990

Ms. Teresa Partain
Law Associates, Inc.
114 Town Park Drive
Kennesaw, GA 30144

Dear Ms. Partain:


Enclosed are the TEM analyses of the dust samples we performed on your job: A88 120.18, Prudential, Century Center IV, 2200 Building and 2600 Building, which we received on January 12, 1989.

The samples were labelled:

1 - 18
(See Dust Sample Location Sheets)

Please call our office at your convenience should you have any questions concerning the analyses of your samples.

Sincerely,


William E. Longo, Ph.D.
President

WEL:pgd
Enc.
Ref: M2140

CLIENT NAME: Law Associates/Kennesaw

PROJECT NAME/NUMBER: A88-120.18, Prudential
Century Center IV, 2200 Building

MAS JOB# M2140

SUMMARY OF DUST SAMPLE LOCATION

SAMPLE #

- | | |
|----|--|
| 1 | Carpet Sample, Suite 90, File
Storage Room Floor |
| 2 | Dust Sample, Suite 90, File Storage
Room Shelves |
| 3 | Carpet Sample, Suite 660, Paper
Storage Room |
| 4 | Dust Sample, Suite 650, Top of
Kitchenette Cabinets |
| 5 | Carpet Sample, 5th Floor Lobby,
Entrance to Men's Bathroom |
| 6 | Dust Sample, Suite 532, Top of
Brown Phone Switching Box |
| 7 | Dust Sample, 4th Floor Air Handler,
Horizontal Surface above Intake Filters |
| 8 | Dust Sample, 3rd Floor Air Handler,
Horizontal Surface above Intake Filters |
| 9 | Dust Sample, Suite 220, Top of Isotec
Switchbox |
| 10 | Carpet Sample, First Floor, Intersection of
Elevator Lobby and Main Lobby |

CLIENT NAME: Law Associates, Kennesaw

PROJECT NAME/NUMBER: A88-120.18, Prudential
Century Center IV, 2600 Building

MAS JOB# M2140

SUMMARY OF DUST SAMPLE LOCATION

SAMPLE #

- | | |
|----|---|
| 11 | Dust Sample, 4th Floor
South Center Room, Back of Ceiling Tile |
| 12 | Dust Sample, 4th Floor
Air Handler Room, Top of Duct |
| 13 | Dust Sample, 3rd Floor
Air Handler Room, Top of Duct |
| 14 | Carpet Sample, Suite 375
Left Rear Corner |
| 15 | Dust Sample, Basement Mechanical Room,
Top of Breaker Box |
| 16 | Carpet Sample, Basement Mechanical Room
Office, Behind Door |
| 17 | Carpet Sample, 1st Floor Lobby,
West Side, Base of Steps |
| 18 | Carpet Sample, Service Elevator,
Left Front Corner |

Materials Analytical Services Inc.
 3597 Parkway Lane, Suite 250
 Norcross, Georgia 30092
 (404) 448-3200

TEM ASBESTOS ANALYSIS REPORT

Client	LAW-Kennesaw	Sample Area	1.000 sq ft
Sample ID:	1	Filter Type:	47MM
MAS Log Number:	M2140-1	Filter Area:	1.34E+009
Sample Received:	01-12-89	Grid Openings:	10
Sample Due Date:		Grids Examined:	2
Type Analysis:	DUST	Avg Area of Grid:	8057
Microscopist:	<i>W. P. Smith</i>	Tot Area Examined:	80570
Reviewed By:	<i>Q. H. H. H. H.</i>	Magnification:	15414X
Client Proj/ref:	A88120.18	Dilution Factor:	1:7

	Area Examined		Structures	
	< 5 um	>= 5 um	< 5 um	>= 5 um
No. Free Chrysotile Fibers:	11	1	1.220E+06	1.109E+05
No. of Chrysotile Bundles:	0	0	0.000E+00	0.000E+00
No. of Chrysotile Clusters:	0	0	0.000E+00	0.000E+00
No. of Chrysotile Matrices:	6	0	6.653E+05	0.000E+00
No. Free Amphibole Fibers:	0	0	0.000E+00	0.000E+00
No. of Amphibole Bundles:	0	0	0.000E+00	0.000E+00
No. of Amphibole Clusters:	0	0	0.000E+00	0.000E+00
No. of Amphibole Matrices:	0	0	0.000E+00	0.000E+00
Total Asbestos Structures/1 sq ft (All)			: 1.996E+06	
Total Asbestos Structures/1 sq ft (>= 5 um):			1.109E+05	

Comments:

* The Detection Limit is calculated on the probability of analyzing one asbestos fiber or structure in the total area examined.

* 0.000 display = Below Detection Limit

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Client LAW-Kennesaw
 Sample ID: 1
 MAS Log Number: M2140-1
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: *W. P. Smith*
 Reviewed By: *W. P. Smith*
 Client Proj/ref: A88120.18

Sample Area 1.000 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 10
 Grids Examined: 2
 Avg Area of Grid: 8057
 Tot Area Examined: 80570
 Magnification: 15414X
 Dilution Factor: 1:7

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
1	1-1	c	f	2.50	0.20
2		c	f	2.30	0.20
3		c	f	2.00	0.20
4		c	f	1.00	0.15
5	1-2	c	m	3.00	0.20
6		c	f	1.00	0.15
7	1-3	c	f	7.50	0.30
8	1-4	c	f	1.50	0.15
9	1-5	c	f	1.00	0.15
10	2-1	c	f	1.50	0.15
11	2-2	c	m	1.80	0.15
12		c	m	3.60	0.20
13		c	m	2.30	0.15
14		c	m	3.60	0.15
15	2-3	c	f	2.50	0.50
16		c	f	4.50	0.20
17	2-4	c	m	2.00	0.20
18	2-5	c	f	3.00	0.20

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TEM ASBESTOS ANALYSIS REPORT

Client	LAW-Kennesaw	Sample Area	1.000 sq ft
Sample ID:	2	Filter Type:	47MM
MAS Log Number:	M2140-2	Filter Area:	1.34E+009
Sample Received:	01-12-89	Grid Openings:	10
Sample Due Date:		Grids Examined:	2
Type Analysis:	DUST	Avg Area of Grid:	8645
Microscopist:	<i>W. Smith / A. Hannon</i>	Tot Area Examined:	86450
Reviewed By:	<i>H. Hannon</i>	Magnification:	15414X
Client Proj/ref:	A88120.18	Dilution Factor:	1:50

	Area Examined		Structures	
	< 5 um	>= 5 um	< 5 um	>= 5 um
No. Free Chrysotile Fibers:	19	3	1.473E+07	2.325E+06
No. of Chrysotile Bundles:	2	2	1.550E+06	1.550E+06
No. of Chrysotile Clusters:	1	1	7.750E+05	7.750E+05
No. of Chrysotile Matrices:	2	0	1.550E+06	0.000E+00
No. Free Amphibole Fibers:	0	0	0.000E+00	0.000E+00
No. of Amphibole Bundles:	0	0	0.000E+00	0.000E+00
No. of Amphibole Clusters:	0	0	0.000E+00	0.000E+00
No. of Amphibole Matrices:	0	0	0.000E+00	0.000E+00

Total Asbestos Structures/1 sq ft (All) : 2.325E+07
 Total Asbestos Structures/1 sq ft (>= 5 um): 4.650E+06

Comments:

* The Detection Limit is calculated on the probability of analyzing one asbestos fiber or structure in the total area examined.

* 0.000 display = Below Detection Limit

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Client LAW-Kennesaw
 Sample ID: 2
 MAS Log Number: M2140-2
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: *W. Smith / C. Hannon*
 Reviewed By: *H. Hamette*
 Client Proj/ref: A88120.18

Sample Area 1.000 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 10
 Grids Examined: 2
 Avg Area of Grid: 8645
 Tot Area Examined: 86450
 Magnification: 15414X
 Dilution Factor: 1:50

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
1	1-1	c	f	1.00	0.15
2		c	m	3.50	0.20
3	1-2	c	b	1.00	0.15
4	1-3	c	f	1.80	0.15
5		c	f	1.00	0.15
6	1-4	c	f	1.20	0.10
7		c	f	2.20	0.20
8		c	f	1.50	0.15
9		c	f	2.50	0.20
10		c	f	6.00	0.20
11	1-5	c	m	1.50	0.15
12		c	f	1.00	0.15
13		c	f	1.50	0.15
14	2-1	c	f	1.80	0.10
15		c	f	2.00	0.10
16	2-2	c	f	2.50	0.10
17	2-3	c	f	8.00	0.10
18		c	f	1.00	0.10
19		c	c	5.50	2.20
20		c	b	6.00	0.20
21		c	f	4.80	0.10
22		c	f	12.00	0.10
23	2-4	c	f	1.50	0.10
24		c	f	4.00	0.10
25		c	f	2.20	0.10
26	2-5	c	f	3.80	0.10
27		c	f	2.50	0.10
28		c	b	6.50	0.20
29		c	c	3.00	2.50
30		c	b	3.80	0.40

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TEM ASBESTOS ANALYSIS REPORT

Client	LAW-Kennesaw	Sample Area	1.000 sq ft
Sample ID:	3	Filter Type:	47MM
MAS Log Number:	M2140-3	Filter Area:	1.34E+009
Sample Received:	01-12-89	Grid Openings:	10
Sample Due Date:		Grids Examined:	2
Type Analysis:	DUST	Avg Area of Grid:	8145
Microscopist:	<i>W. Smith / J. O'Hanlon</i>	Tot Area Examined:	81450
Reviewed By:	<i>D. J. Smith</i>	Magnification:	15414X
Client Proj/ref:	88120.18	Dilution Factor:	1:100

	Area Examined		Structures	
	< 5 um	>= 5 um	< 5 um	>= 5 um
No. Free Chrysotile Fibers:	60	12	9.871E+07	1.974E+07
No. of Chrysotile Bundles:	5	1	8.226E+06	1.645E+06
No. of Chrysotile Clusters:	5	2	8.226E+06	3.290E+06
No. of Chrysotile Matrices:	6	0	9.871E+06	0.000E+00
No. Free Amphibole Fibers:	0	0	0.000E+00	0.000E+00
No. of Amphibole Bundles:	0	0	0.000E+00	0.000E+00
No. of Amphibole Clusters:	0	0	0.000E+00	0.000E+00
No. of Amphibole Matrices:	0	0	0.000E+00	0.000E+00

Total Asbestos Structures/1 sq ft (All) : 1.497E+08
 Total Asbestos Structures/1 sq ft (>= 5 um): 2.468E+07

Comments:

* The Detection Limit is calculated on the probability of analyzing one asbestos fiber or structure in the total area examined.

* 0.000 display = Below Detection Limit

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Client LAW-Kennesaw
 Sample ID: 3
 MAS Log Number: M2140-3
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: *W. Smith / Altman*
 Reviewed By: *H. Smith*
 Client Proj/ref: A88120.18

Sample Area 1.000 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 10
 Grids Examined: 2
 Avg Area of Grid: 8145
 Tot Area Examined: 81450
 Magnification: 15414X
 Dilution Factor: 1:100

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
1	1-1	c	m	3.00	0.20
2		c	m	1.00	0.15
3		c	f	1.20	0.20
4		c	f	1.10	0.15
5		c	f	1.40	0.15
6		c	f	0.90	0.15
7		c	f	2.00	0.15
8		c	f	0.90	0.15
9		c	b	0.90	0.40
10		c	f	3.60	0.20
11	1-2	c	f	6.00	0.10
12		c	f	2.80	0.10
13		c	f	2.50	0.10
14		c	f	0.80	0.10
15		c	f	1.50	0.10
16		c	f	1.20	0.10
17		c	f	5.00	0.10
18	1-3	c	f	1.00	0.10
19		c	f	2.80	0.10
20		c	f	1.50	0.10
21		c	b	2.80	0.60
22		c	f	3.80	0.10
23		c	f	1.50	0.10
24		c	f	6.50	0.10
25	1-4	c	f	6.00	0.10
26		c	f	7.00	0.10
27		c	f	2.50	0.10
28		c	f	3.50	0.10
29		c	f	4.50	0.10
30		c	f	1.50	0.10
31		c	c	4.00	1.80
32		c	f	1.00	0.10
33		c	f	2.00	0.10
34		c	c	3.50	2.50
35		c	f	1.50	0.10

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Client LAW-Kennesaw
 Sample ID: 3
 MAS Log Number: M2140-3
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: *W. Smith / A. Hammer*
 Reviewed By: *H. Gerardi*
 Client Proj/ref: A88120.18

Sample Area 1.000 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 10
 Grids Examined: 2
 Avg Area of Grid: 8145
 Tot Area Examined: 81450
 Magnification: 15414X
 Dilution Factor: 1:100

Strc.	Grid Op	Type c, a	Structure f, b, c, m	Length Microns	Width Microns
36		c	f	4.20	0.10
37		c	b	6.50	0.20
38		c	f	1.20	0.10
39		c	f	2.50	0.10
40		c	f	2.00	0.10
41	1-5	c	c	5.50	4.00
42		c	f	3.60	0.10
43		c	f	8.50	0.10
44		c	f	4.20	0.10
45		c	f	2.00	0.10
46		c	f	4.00	0.10
47		c	f	3.20	0.10
48		c	f	8.00	0.10
49		c	f	2.20	0.10
50		c	f	2.50	0.10
51		c	f	2.20	0.10
52		c	f	12.00	0.10
53	2-1	c	f	1.50	0.10
54		c	f	4.80	0.10
55		c	f	5.00	0.10
56		c	f	1.50	0.10
57	2-2	c	f	2.20	0.10
58		c	f	1.20	0.10
59		c	f	1.50	0.10
60		c	f	3.00	0.10
61		c	f	3.00	0.10
62		c	c	3.50	1.80
63		c	b	1.50	0.20
64	2-3	c	f	2.20	0.10
65		c	b	4.50	0.20
66		c	m	3.20	2.80
67		c	m	2.50	2.00
68		c	f	1.50	0.10
69		c	c	5.00	3.80
70		c	f	3.20	0.10

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Client LAW-Kennesaw
 Sample ID: 3
 MAS Log Number: M2140-3
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: *W. R. Smith / althaus*
 Reviewed By: *H. J. Smith*
 Client Proj/ref: A88120.18

Sample Area 1.000 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 10
 Grids Examined: 2
 Avg Area of Grid: 8145
 Tot Area Examined: 81450
 Magnification: 15414X
 Dilution Factor: 1:100

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
71		c	b	1.80	0.20
72	2-4	c	f	6.50	0.10
73		c	f	1.20	0.10
74		c	f	6.80	0.10
75		c	f	1.50	0.10
76		c	f	2.20	0.10
77		c	f	3.20	0.10
78		c	f	2.80	0.10
79		c	f	2.20	0.10
80		c	m	3.80	3.00
81		c	f	4.50	0.10
82		c	c	2.00	1.00
83	2-5	c	f	3.50	0.10
84		c	f	1.00	0.10
85		c	f	1.20	0.10
86		c	m	4.50	2.50
87		c	f	2.00	0.10
88		c	f	5.00	0.10
89		c	f	3.50	0.10
90		c	c	4.00	1.50
91		c	f	1.50	0.10

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TEM ASBESTOS ANALYSIS REPORT

Client	LAW-Kennesaw	Sample Area	1.000 sq ft
Sample ID:	4	Filter Type:	47MM
MAS Log Number:	M2140-4	Filter Area:	1.34E+009
Sample Received:	01-12-89	Grid Openings:	10
Sample Due Date:		Grids Examined:	2
Type Analysis:	DUST	Avg Area of Grid:	8011
Microscopist:	<i>Q. H. H. H.</i>	Tot Area Examined:	80110
Reviewed By:	<i>M. L. L.</i>	Magnification:	15414X
Client Proj/ref:	A88120.18	Dilution Factor:	1:50

	Area Examined		Structures	
	< 5 um	>= 5 um	< 5 um	>= 5 um
No. Free Chrysotile Fibers:	1	1	8.364E+05	8.364E+05
No. of Chrysotile Bundles:	0	0	0.000E+00	0.000E+00
No. of Chrysotile Clusters:	0	0	0.000E+00	0.000E+00
No. of Chrysotile Matrices:	0	0	0.000E+00	0.000E+00
No. Free Amphibole Fibers:	1	0	8.364E+05	0.000E+00
No. of Amphibole Bundles:	0	0	0.000E+00	0.000E+00
No. of Amphibole Clusters:	0	0	0.000E+00	0.000E+00
No. of Amphibole Matrices:	0	0	0.000E+00	0.000E+00
Total Asbestos Structures/1 sq ft (All)	:		2.509E+06	
Total Asbestos Structures/1 sq ft (>= 5 um):	:		8.364E+05	

Comments:

* The Detection Limit is calculated on the probability of analyzing one asbestos fiber or structure in the total area examined.

* 0.000 display = Below Detection Limit

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Client LAW-Kennesaw
 Sample ID: 4
 MAS Log Number: M2140-4
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: Opferman
 Reviewed By: H. K. Smith
 Client Proj/ref: A88420.18

Sample Area 1.000 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 10
 Grids Examined: 2
 Avg Area of Grid: 8011
 Tot Area Examined: 80110
 Magnification: 15414X
 Dilution Factor: 1:50

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
1	2-4	a	f	1.80	0.10
2		c	f	6.80	0.10
3	2-5	c	f	4.20	0.10

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TEM ASBESTOS ANALYSIS REPORT

Client	LAW-Kennesaw	Sample Area	1.000 sq ft
Sample ID:	5	Filter Type:	47MM
MAS Log Number:	M2140-5	Filter Area:	1.34E+009
Sample Received:	01-12-89	Grid Openings:	10
Sample Due Date:		Grids Examined:	2
Type Analysis:	DUST	Avg Area of Grid:	8145
Microscopist:	<i>[Signature]</i>	Tot Area Examined:	81450
Reviewed By:	<i>[Signature]</i>	Magnification:	15414X
Client Proj/ref:	A88120.18	Dilution Factor:	1:4

	Area Examined		Structures	
	< 5 um	>= 5 um	< 5 um	>= 5 um
No. Free Chrysotile Fibers:	14	1	9.213E+05	6.581E+04
No. of Chrysotile Bundles:	1	1	6.581E+04	6.581E+04
No. of Chrysotile Clusters:	0	0	0.000E+00	0.000E+00
No. of Chrysotile Matrices:	0	0	0.000E+00	0.000E+00
No. Free Amphibole Fibers:	0	0	0.000E+00	0.000E+00
No. of Amphibole Bundles:	0	0	0.000E+00	0.000E+00
No. of Amphibole Clusters:	0	0	0.000E+00	0.000E+00
No. of Amphibole Matrices:	0	0	0.000E+00	0.000E+00

Total Asbestos Structures/1 sq ft (All) : 1.119E+06
 Total Asbestos Structures/1 sq ft (>= 5 um): 1.316E+05

Comments:

* The Detection Limit is calculated on the probability of analyzing one asbestos fiber or structure in the total area examined.

* 0.000 display = Below Detection Limit

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Client LAW-Kennesaw
 Sample ID: 5
 MAS Log Number: M2140-5
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: Q. H. H. H. H. H.
 Reviewed By: H. H. H. H. H.
 Client Proj/ref: A88120.18

Sample Area 1.000 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 10
 Grids Examined: 2
 Avg Area of Grid: 8145
 Tot Area Examined: 81450
 Magnification: 15414X
 Dilution Factor: 1:4

Strc.	Grid Op	Type c, a	Structure f, b, c, m	Length Microns	Width Microns
1	1-1	c	f	1.20	0.10
2		c	f	1.50	0.10
3		c	f	4.50	0.10
4		c	f	2.50	0.10
5	1-2	c	f	1.80	0.10
6	1-3	c	f	7.00	0.10
7		c	b	6.80	0.20
8	2-1	c	f	3.50	0.10
9		c	f	3.80	0.10
10	2-2	c	f	2.80	0.10
11		c	f	1.50	0.10
12	2-3	c	f	2.50	0.10
13		c	f	2.80	0.10
14	2-5	c	f	3.60	0.10
15		c	f	3.20	0.10
16		c	f	2.50	0.10
17		c	b	4.50	0.20

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TEM ASBESTOS ANALYSIS REPORT

Client	LAW-Kennesaw	Sample Area	0.833 sq ft
Sample ID:	6	Filter Type:	47MM
MAS Log Number:	M2140-6	Filter Area:	1.34E+009
Sample Received:	01-12-89	Grid Openings:	10
Sample Due Date:		Grids Examined:	2
Type Analysis:	DUST	Avg Area of Grid:	8130
Microscopist:	<i>[Signature]</i>	Tot Area Examined:	81300
Reviewed By:	<i>[Signature]</i>	Magnification:	15414X
Client Proj/ref:	888120.18	Dilution Factor:	1:500

	Area Examined		Structures	
	< 5 um	>= 5 um	< 5 um	>= 5 um
No. Free Chrysotile Fibers:	8	4	7.915E+07	3.957E+07
No. of Chrysotile Bundles:	1	0	9.893E+06	0.000E+00
No. of Chrysotile Clusters:	0	0	0.000E+00	0.000E+00
No. of Chrysotile Matrices:	8	1	7.915E+07	9.893E+06
No. Free Amphibole Fibers:	0	0	0.000E+00	0.000E+00
No. of Amphibole Bundles:	0	0	0.000E+00	0.000E+00
No. of Amphibole Clusters:	0	0	0.000E+00	0.000E+00
No. of Amphibole Matrices:	0	0	0.000E+00	0.000E+00
Total Asbestos Structures/1 sq ft (All) : 2.177E+08				
Total Asbestos Structures/1 sq ft (>= 5 um): 4.947E+07				

Comments:

* The Detection Limit is calculated on the probability of analyzing one asbestos fiber or structure in the total area examined.

* 0.000 display = Below Detection Limit

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Client	LAW-Kennesaw	Sample Area	0.833 sq ft
Sample ID:	6	Filter Type:	47MM
MAS Log Number:	M2140-6	Filter Area:	1.34E+009
Sample Received:	01-12-89	Grid Openings:	10
Sample Due Date:		Grids Examined:	2
Type Analysis:	BUST	Avg Area of Grid:	8130
Microscopist:	<i>[Signature]</i>	Tot Area Examined:	81300
Reviewed By:	<i>[Signature]</i>	Magnification:	15414X
Client Proj/ref:	A88120.18	Dilution Factor:	1:500

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
1	1-1	c	f	2.00	0.30
2		c	f	2.40	0.20
3	1-2	c	m	1.80	0.20
4		c	m	3.00	0.15
5	1-3	c	m	1.10	0.15
6		c	m	2.50	0.15
7	1-4	c	f	8.00	0.20
8		c	f	17.00	0.20
9		c	m	1.00	0.15
10		c	f	1.80	0.20
11		c	m	3.00	0.30
12	1-5	c	f	4.00	0.20
13	2-2	c	f	3.00	0.10
14		c	b	3.20	0.20
15		c	m	5.00	4.50
16		c	f	2.00	0.10
17	2-3	c	f	11.00	0.10
18		c	f	6.00	0.10
19		c	f	4.20	0.10
20	2-4	c	m	4.00	3.50
21		c	f	2.80	0.10
22		c	m	4.20	3.80

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TEM ASBESTOS ANALYSIS REPORT

Client	LAW-Kennesaw	Sample Area	0.667 sq ft
Sample ID:	7	Filter Type:	47MM
MAS Log Number:	M2140-7	Filter Area:	1.34E+009
Sample Received:	01-12-89	Grid Openings:	1
Sample Due Date:		Grids Examined:	1
Type Analysis:	DUST	Avg Area of Grid:	7656
Microscopist:	<i>A. Hansen</i>	Tot Area Examined:	7656
Reviewed By:	<i>A. Hansen</i>	Magnification:	15414X
Client Proj/ref:	A88120.18	Dilution Factor:	1:50

	Area Examined		Structures	
	< 5 um	>= 5 um	< 5 um	>= 5 um
No. Free Chrysotile Fibers:	66	8	8.659E+08	1.050E+08
No. of Chrysotile Bundles:	1	3	1.312E+07	3.936E+07
No. of Chrysotile Clusters:	4	3	5.248E+07	3.936E+07
No. of Chrysotile Matrices:	3	3	3.936E+07	3.936E+07
No. Free Amphibole Fibers:	0	0	0.000E+00	0.000E+00
No. of Amphibole Bundles:	0	0	0.000E+00	0.000E+00
No. of Amphibole Clusters:	0	0	0.000E+00	0.000E+00
No. of Amphibole Matrices:	0	0	0.000E+00	0.000E+00

Total Asbestos Structures/1 sq ft (All) : 1.194E+09
 Total Asbestos Structures/1 sq ft (>= 5 um): 2.230E+08

Comments:

* The Detection Limit is calculated on the probability of analyzing one asbestos fiber or structure in the total area examined.

* 0.000 display = Below Detection Limit

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Client LAW-Kennesaw
 Sample ID: 7
 MAS Log Number: M2140-7
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: Al Harrison
 Reviewed By: Sh. Hamada
 Client Proj/ref: A88420.18

Sample Area 0.667 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 1
 Grids Examined: 1
 Avg Area of Grid: 7656
 Tot Area Examined: 7656
 Magnification: 15414X
 Dilution Factor: 1:50

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
1	1-1	c	f	3.50	0.10
2		c	f	3.00	0.10
3		c	f	1.50	0.10
4		c	c	2.50	1.50
5		c	m	4.80	1.00
6		c	m	5.00	3.50
7		c	c	3.50	2.80
8		c	m	5.50	4.80
9		c	f	4.00	0.10
10		c	b	55.00	0.20
11		c	f	3.50	0.10
12		c	f	4.50	0.10
13		c	f	2.20	0.10
14		c	f	15.00	0.10
15		c	f	4.50	0.10
16		c	f	3.50	0.10
17		c	f	3.80	0.10
18		c	f	1.50	0.10
19		c	f	5.50	0.10
20		c	f	2.80	0.10
21		c	f	1.80	0.10
22		c	f	4.00	0.10
23		c	f	1.20	0.10
24		c	f	3.50	0.10
25		c	f	3.20	0.10
26		c	f	2.20	0.10
27		c	f	3.60	0.10
28		c	f	1.00	0.10
29		c	f	1.50	0.10
30		c	f	2.50	0.10
31		c	f	1.00	0.10
32		c	f	2.80	0.10
33		c	f	4.00	0.10
34		c	f	1.50	0.10
35		c	f	2.00	0.10

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Client LAW-Kennesaw
 Sample ID: 7
 MAS Log Number: M2140-7
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: *Al Huma*
 Reviewed By: *M. L. Huma*
 Client Proj/ref: A88120.18

Sample Area 0.667 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 1
 Grids Examined: 1
 Avg. Area of Grid: 7656
 Tot Area Examined: 7656
 Magnification: 15414X
 Dilution Factor: 1:50

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
36		c	f	2.20	0.10
37		c	f	2.20	0.10
38		c	f	2.80	0.10
39		c	b	7.50	0.20
40		c	f	2.20	0.10
41		c	f	4.50	0.10
42		c	f	5.50	0.10
43		c	f	2.80	0.10
44		c	f	1.00	0.10
45		c	f	3.50	0.10
46		c	f	2.80	0.10
47		c	c	3.50	2.40
48		c	c	4.50	3.80
49		c	f	12.00	0.10
50		c	f	2.20	0.10
51		c	f	2.80	0.10
52		c	m	4.00	3.50
53		c	f	4.50	0.10
54		c	f	2.00	0.10
55		c	f	1.20	0.10
56		c	f	2.80	0.10
57		c	f	2.00	0.10
58		c	f	2.50	0.10
59		c	f	8.50	0.10
60		c	f	6.00	0.10
61		c	c	11.00	4.00
62		c	f	4.00	0.10
63		c	f	1.80	0.10
64		c	c	8.50	3.60
65		c	f	1.20	0.10
66		c	f	2.00	0.10
67		c	f	6.50	0.10
68		c	f	1.20	0.10
69		c	f	2.00	0.10
70		c	f	3.00	0.10

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Client	LAW-Kennesaw	Sample Area	0.667 sq ft
Sample ID:	7	Filter Type:	47MM
MAS Log Number:	M2140-7	Filter Area:	1.34E+009
Sample Received:	01-12-89	Grid Openings:	1
Sample Due Date:		Grids Examined:	1
Type Analysis:	DUST	Avg Area of Grid:	7656
Microscopist:	<i>[Signature]</i>	Tot Area Examined:	7656
Reviewed By:	<i>[Signature]</i>	Magnification:	15414X
Client Proj/ref:	A88/20.18	Dilution Factor:	1:50

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
71		c	f	3.20	0.10
72		c	c	11.00	3.80
73		c	f	0.80	0.10
74		c	m	7.00	2.20
75		c	f	4.00	0.10
76		c	f	1.40	0.10
77		c	f	2.80	0.10
78		c	f	1.50	0.10
79		c	f	1.20	0.10
80		c	b	8.50	0.30
81		c	m	2.50	0.80
82		c	f	1.50	0.10
83		c	f	18.00	0.10
84		c	f	4.80	0.10
85		c	f	1.50	0.10
86		c	f	4.60	0.10
87		c	f	1.20	0.10
88		c	b	1.50	0.20
89		c	f	1.80	0.10
90		c	f	4.00	0.10
91		c	f	2.20	0.10

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TEM ASBESTOS ANALYSIS REPORT

Client	LAW-Kennesaw	Sample Area	0.666 sq ft
Sample ID:	8	Filter Type:	47MM
MAS Log Number:	M2140-8	Filter Area:	1.34E+009
Sample Received:	01-12-89	Grid Openings:	2
Sample Due Date:		Grids Examined:	2
Type Analysis:	DUST	Avg Area of Grid:	9183
Microscopist:	<i>W. B. Smith</i>	Tot Area Examined:	18366
Reviewed By:	<i>Al. H. Brown</i>	Magnification:	15414X
Client Proj/ref:	A88120.18	Dilution Factor:	1:1000

	Area Examined		Structures	
	< 5 um	>= 5 um	< 5 um	>= 5 um
No. Free Chrysotile Fibers:	69	16	7.559E+09	1.753E+09
No. of Chrysotile Bundles:	3	0	3.287E+08	0.000E+00
No. of Chrysotile Clusters:	4	0	4.382E+08	0.000E+00
No. of Chrysotile Matrices:	11	4	1.205E+09	4.382E+08
No. Free Amphibole Fibers:	0	0	0.000E+00	0.000E+00
No. of Amphibole Bundles:	0	0	0.000E+00	0.000E+00
No. of Amphibole Clusters:	0	0	0.000E+00	0.000E+00
No. of Amphibole Matrices:	0	0	0.000E+00	0.000E+00
Total Asbestos Structures/1 sq ft (All)	:		1.172E+10	
Total Asbestos Structures/1 sq ft (>= 5 um):	:		2.191E+09	

Comments:

* The Detection Limit is calculated on the probability of analyzing one asbestos fiber or structure in the total area examined.

* 0.000 display = Below Detection Limit

Materials Analytical Services Inc.

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Client LAW-Kennesaw
 Sample ID: 8
 MAS Log Number: M2140-8
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: *W. P. Smith*
 Reviewed By: *Oldham*
 Client Proj/ref: A88120.18

Sample Area 0.666 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 2
 Grids Examined: 2
 Avg Area of Grid: 9183
 Tot Area Examined: 18366
 Magnification: 15414X
 Dilution Factor: 1:1000

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
1	1-1	c	f	1.80	0.20
2		c	f	1.00	0.15
3		c	f	3.00	0.15
4		c	f	1.00	0.15
5		c	f	0.70	0.10
6		c	f	2.50	0.20
7		c	f	2.70	0.20
8		c	f	2.00	0.20
9		c	f	0.90	0.15
10		c	f	2.50	0.20
11		c	m	7.00	0.30
12		c	m	8.00	0.30
13		c	f	2.00	0.20
14		c	f	3.50	0.20
15		c	f	2.00	0.15
16		c	f	1.90	0.15
17		c	f	4.00	0.20
18		c	f	3.50	0.20
19		c	f	2.00	0.20
20		c	f	8.00	0.20
21		c	c	2.00	0.70
22		c	f	7.00	0.20
23		c	m	3.50	1.00
24		c	f	2.00	0.15
25		c	f	1.50	0.20
26		c	f	10.00	0.20
27		c	f	1.00	0.15
28		c	f	7.00	0.20
29		c	f	2.50	0.20
30		c	f	2.20	0.20
31		c	f	3.50	0.15
32		c	f	3.50	0.20
33		c	f	2.20	0.20
34		c	f	6.00	0.15
35		c	f	5.00	0.20

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Client LAW-Kennesaw
 Sample ID: 8
 MAS Log Number: M2140-8
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: *W. P. Smith*
 Reviewed By: *A. H. Hannon*
 Client Proj/ref: A88120.18

Sample Area 0.666 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 2
 Grids Examined: 2
 Avg Area of Grid: 9183
 Tot Area Examined: 18366
 Magnification: 15414X
 Dilution Factor: 1:1000

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
36		c	c	2.00	1.00
37		c	f	2.00	0.15
38		c	f	10.00	0.20
39		c	f	3.50	0.20
40		c	f	3.00	0.15
41		c	f	3.60	0.30
42	2-1	c	f	4.00	0.20
43		c	f	10.00	0.50
44		c	f	3.50	0.10
45		c	f	1.90	0.15
46		c	f	1.10	0.20
47		c	f	1.10	0.15
48		c	f	2.20	0.20
49		c	f	4.00	0.20
50		c	c	4.00	0.50
51		c	c	3.00	0.60
52		c	f	2.00	0.20
53		c	f	3.00	0.30
54		c	m	2.00	0.90
55		c	f	2.00	0.30
56		c	f	2.00	0.15
57		c	m	5.00	0.20
58		c	f	9.00	0.30
59		c	m	2.50	0.15
60		c	f	1.00	0.15
61		c	f	1.70	0.20
62		c	m	0.90	0.10
63		c	f	0.90	0.10
64		c	f	1.80	0.15
65		c	f	0.90	0.10
66		c	m	1.00	0.15
67		c	b	3.00	0.30
68		c	m	4.00	0.80
69		c	f	1.00	0.15
70		c	f	30.00	0.30

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Client LAW-Kennesaw
 Sample ID: 8
 MAS Log Number: M2140-8
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: *W. P. Smith*
 Reviewed By: *A. L. Hannon*
 Client Proj/ref: A88120.18

Sample Area 0.666 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 2
 Grids Examined: 2
 Avg Area of Grid: 9183
 Tot Area Examined: 18366
 Magnification: 15414X
 Dilution Factor: 1:1000

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
71		c	f	24.00	0.30
72		c	f	2.00	0.15
73		c	f	3.00	0.20
74		c	f	0.90	0.15
75		c	f	3.00	0.15
76		c	f	1.80	0.20
77		c	f	18.00	0.20
78		c	f	8.00	0.20
79		c	f	1.70	0.20
80		c	f	5.00	0.20
81		c	m	2.00	0.20
82		c	m	1.00	0.15
83		c	f	1.90	0.10
84		c	f	1.00	0.10
85		c	f	2.50	0.20
86		c	f	3.00	0.20
87		c	f	3.00	0.30
88		c	f	2.00	0.20
89		c	f	2.30	0.15
90		c	f	6.00	0.30
91		c	f	2.20	0.10
92		c	f	0.90	0.10
93		c	m	2.00	1.50
94		c	f	3.20	0.20
95		c	f	3.50	0.20
96		c	f	1.90	0.10
97		c	f	1.90	0.20
98		c	f	15.00	0.20
99		c	f	1.00	0.10
100		c	m	2.50	0.10
101		c	b	1.00	0.20
102		c	f	3.50	0.15
103		c	f	0.80	0.10
104		c	f	1.00	0.20
105		c	m	1.40	0.20

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Client	LAW-Kennesaw	Sample Area	0.666 sq ft
Sample ID:	8	Filter Type:	47MM
MAS Log Number:	M2140-8	Filter Area:	1.34E+009
Sample Received:	01-12-89	Grid Openings:	2
Sample Due Date:		Grids Examined:	2
Type Analysis:	DUST	Avg Area of Grid:	9183
Microscopist:	<i>W. P. Smith</i>	Tot Area Examined:	18366
Reviewed By:	<i>W. P. Smith</i>	Magnification:	15414X
Client Proj/ref:	A88120.18	Dilution Factor:	1:1000

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
106		c	m	7.00	2.00
107		c	b	1.80	0.30

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TEM ASBESTOS ANALYSIS REPORT

Client	LAW-Kennesaw	Sample Area	1.000 sq ft
Sample ID:	9	Filter Type:	47MM
MAS Log Number:	M2140-9	Filter Area:	1.34E+009
Sample Received:	01-12-89	Grid Openings:	10
Sample Due Date:		Grids Examined:	2
Type Analysis:	DUST	Avg Area of Grid:	7977
Microscopist:	<i>W. P. Smith</i>	Tot Area Examined:	79770
Reviewed By:	<i>W. P. Smith</i>	Magnification:	15414X
Client Proj/ref:	AB8120.18	Dilution Factor:	1:143

	Area Examined		Structures	
	< 5 um	>= 5 um	< 5 um	>= 5 um
No. Free Chrysotile Fibers:	32	7	7.687E+07	1.682E+07
No. of Chrysotile Bundles:	2	0	4.804E+06	0.000E+00
No. of Chrysotile Clusters:	0	1	0.000E+00	2.402E+06
No. of Chrysotile Matrices:	5	1	1.201E+07	2.402E+06
No. Free Amphibole Fibers:	0	0	0.000E+00	0.000E+00
No. of Amphibole Bundles:	0	0	0.000E+00	0.000E+00
No. of Amphibole Clusters:	0	0	0.000E+00	0.000E+00
No. of Amphibole Matrices:	0	0	0.000E+00	0.000E+00
Total Asbestos Structures/1 sq ft (All)	:		1.153E+08	
Total Asbestos Structures/1 sq ft (>= 5 um):	:		2.162E+07	

Comments:

* The Detection Limit is calculated on the probability of analyzing one asbestos fiber or structure in the total area examined.

* 0.000 display = Below Detection Limit

Materials Analytical Services Inc.

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Client LAW-Kennesaw
 Sample ID: 9
 MAS Log Number: M2140-9
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: *W. Smith / A. H. Herson*
 Reviewed By: *A. H. Herson*
 Client Proj/ref: A88120.18

Sample Area 1.000 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 10
 Grids Examined: 2
 Avg Area of Grid: 7977
 Tot Area Examined: 79770
 Magnification: 15414X
 Dilution Factor: 1:143

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
1	1-1	c	f	0.60	0.10
2		c	f	0.70	0.10
3	1-2	c	m	1.00	0.10
4		c	m	0.80	0.10
5		c	f	1.50	0.20
6		c	f	2.00	0.10
7	1-3	c	f	2.50	0.30
8		c	f	1.40	0.10
9		c	f	1.70	0.15
10		c	f	1.20	0.15
11		c	m	1.60	0.15
12		c	f	1.60	0.15
13		c	f	0.90	0.10
14		c	f	1.60	0.15
15		c	f	1.20	0.10
16		c	f	6.00	0.20
17		c	f	3.50	0.20
18	1-4	c	f	1.50	0.10
19		c	m	1.00	0.10
20	1-5	c	f	2.00	0.10
21		c	m	1.20	0.10
22	2-1	c	b	2.00	0.30
23		c	b	3.50	0.20
24		c	f	3.40	0.10
25		c	f	0.50	0.10
26		c	f	1.40	0.10
27	2-2	c	m	25.00	11.00
28		c	f	4.50	0.10
29		c	f	5.00	0.10
30		c	f	4.00	0.10
31		c	f	0.70	0.10
32		c	f	11.00	0.10
33	2-3	c	f	3.50	0.10
34		c	f	3.80	0.10
35	2-4	c	f	8.00	0.10

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Client	LAW-Kennesaw	Sample Area	1.000 sq ft
Sample ID:	9	Filter Type:	47MM
MAS Log Number:	M2140-9	Filter Area:	1.34E+009
Sample Received:	01-12-89	Grid Openings:	10
Sample Due Date:		Grids Examined:	2
Type Analysis:	DUST	Avg Area of Grid:	7977
Microscopist:	<i>P. Schmid/O. H. H. H.</i>	Tot Area Examined:	79770
Reviewed By:	<i>H. H. H. H.</i>	Magnification:	15414X
Client Proj/ref:	A88120.18	Dilution Factor:	1:143

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
36		c	f	2.50	0.10
37		c	f	4.50	0.10
38		c	f	3.20	0.10
39		c	f	5.50	0.10
40		c	c	8.00	3.50
41		c	f	3.50	0.10
42		c	f	4.00	0.10
43		c	f	5.50	0.10
44	2-5	c	f	5.80	0.10
45		c	f	4.00	0.10
46		c	f	3.20	0.10
47		c	f	4.00	0.10
48		c	f	1.50	0.10

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TEM ASBESTOS ANALYSIS REPORT

Client	LAW-Kennesaw	Sample Area	1.000 sq ft
Sample ID:	10	Filter Type:	47MM
MAS Log Number:	M2140-10	Filter Area:	1.34E+009
Sample Received:	01-12-89	Grid Openings:	10
Sample Due Date:		Grids Examined:	2
Type Analysis:	DUST	Avg Area of Grid:	8171
Microscopist:	<i>[Signature]</i>	Tot Area Examined:	81710
Reviewed By:	<i>[Signature]</i>	Magnification:	15414X
Client Proj/ref:	AS8120.18	Dilution Factor:	1:10

	Area Examined		Structures	
	< 5 um	>= 5 um	< 5 um	>= 5 um
No. Free Chrysotile Fibers:	16	1	2.624E+06	1.640E+05
No. of Chrysotile Bundles:	4	0	6.560E+05	0.000E+00
No. of Chrysotile Clusters:	1	0	1.640E+05	0.000E+00
No. of Chrysotile Matrices:	3	1	4.920E+05	1.640E+05
No. Free Amphibole Fibers:	0	0	0.000E+00	0.000E+00
No. of Amphibole Bundles:	0	0	0.000E+00	0.000E+00
No. of Amphibole Clusters:	0	0	0.000E+00	0.000E+00
No. of Amphibole Matrices:	0	0	0.000E+00	0.000E+00

Total Asbestos Structures/1 sq ft (All) : 4.264E+06
 Total Asbestos Structures/1 sq ft (>= 5 um): 3.280E+05

Comments:

* The Detection Limit is calculated on the probability of analyzing one asbestos fiber or structure in the total area examined.

* 0.000 display = Below Detection Limit

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Client LAW-Kennesaw
 Sample ID: 10
 MAS Log Number: M2140-10
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: *W.P. Smith / C. Hamner*
 Reviewed By: *W. Hamner*
 Client Proj/ref: A88120.18

Sample Area 1.000 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 10
 Grids Examined: 2
 Avg Area of Grid: 8171
 Tot Area Examined: 81710
 Magnification: 15414X
 Dilution Factor: 1:10

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
1	1-1	c	f	1.50	0.10
2		c	f	2.20	0.10
3	1-2	c	f	2.80	0.10
4		c	b	2.20	0.20
5		c	f	2.00	0.10
6		c	f	2.80	0.10
7	1-3	c	f	10.00	0.10
8	1-4	c	f	2.50	0.10
9		c	f	4.50	0.10
10	1-5	c	f	3.20	0.10
11		c	f	2.00	0.10
12	2-1	c	f	1.00	0.10
13		c	m	5.00	0.70
14		c	f	1.00	0.15
15		c	b	1.00	0.20
16		c	b	1.00	0.20
17		c	m	3.00	0.70
18	2-2	c	b	2.50	0.60
19		c	f	1.10	0.10
20		c	c	3.00	0.80
21	2-3	c	f	2.30	0.15
22	2-4	c	f	1.00	0.10
23	2-5	c	f	1.90	0.15
24		c	f	3.00	0.15
25		c	m	1.50	0.30
26		c	m	3.00	0.30

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TEM ASBESTOS ANALYSIS REPORT

Client	LAW-Kennesaw	Sample Area	1.000 sq ft
Sample ID:	11	Filter Type:	47MM
MAS Log Number:	M2140-11	Filter Area:	1.34E+009
Sample Received:	01-12-89	Grid Openings:	1
Sample Due Date:		Grids Examined:	1
Type Analysis:	DUST	Avg Area of Grid:	8099
Microscopist:	<i>[Signature]</i>	Tot Area Examined:	8099
Reviewed By:	<i>[Signature]</i>	Magnification:	15414X
Client Proj/ref:	A88120.18	Dilution Factor:	1:500

	Area Examined		Structures	
	< 5 um	>= 5 um	< 5 um	>= 5 um
No. Free Chrysotile Fibers:	67	32	5.543E+09	2.647E+09
No. of Chrysotile Bundles:	4	5	3.309E+08	4.136E+08
No. of Chrysotile Clusters:	2	3	1.655E+08	2.482E+08
No. of Chrysotile Matrices:	5	6	4.136E+08	4.964E+08
No. Free Amphibole Fibers:	0	0	0.000E+00	0.000E+00
No. of Amphibole Bundles:	0	0	0.000E+00	0.000E+00
No. of Amphibole Clusters:	0	0	0.000E+00	0.000E+00
No. of Amphibole Matrices:	0	0	0.000E+00	0.000E+00

Total Asbestos Structures/1 sq ft (All) : 1.026E+10
 Total Asbestos Structures/1 sq ft (>= 5 um): 3.805E+09

Comments:

* The Detection Limit is calculated on the probability of analyzing one asbestos fiber or structure in the total area examined.

* 0.000 display = Below Detection Limit

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Client LAW-Kennesaw
 Sample ID: 11
 MAS Log Number: M2140-11
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: Al Harrison
 Reviewed By: W. Bernstein
 Client Proj/ref: A88/120.18

Sample Area 1.000 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 1
 Grids Examined: 1
 Avg Area of Grid: 8099
 Tot Area Examined: 8099
 Magnification: 15414X
 Dilution Factor: 1:500

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
1	1-1	c	f	1.00	0.10
2		c	f	2.50	0.10
3		c	f	15.00	0.10
4		c	f	18.00	0.10
5		c	f	3.00	0.10
6		c	f	3.50	0.10
7		c	f	2.20	0.10
8		c	f	5.00	0.10
9		c	f	4.00	0.10
10		c	f	5.50	0.10
11		c	f	2.50	0.10
12		c	c	6.00	3.50
13		c	f	2.50	0.10
14		c	f	2.00	0.10
15		c	m	8.00	6.50
16		c	f	2.20	0.10
17		c	f	3.80	0.10
18		c	f	2.00	0.10
19		c	m	5.00	0.10
20		c	f	2.80	0.10
21		c	f	3.50	0.10
22		c	f	2.20	0.10
23		c	f	7.50	0.10
24		c	f	3.50	0.10
25		c	f	4.80	0.10
26		c	f	12.00	0.10
27		c	b	2.80	0.30
28		c	f	4.20	0.10
29		c	m	8.00	2.50
30		c	f	4.50	0.10
31		c	b	8.50	0.20
32		c	f	3.50	0.10
33		c	f	4.00	0.10
34		c	c	4.50	2.80
35		c	f	2.50	0.10

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Client LAW-Kennesaw
 Sample ID: 11
 MAS Log Number: M2140-11
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: Al Harrison
 Reviewed By: Al Harrison
 Client Proj/ref: A88120.18

Sample Area 1.000 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 1
 Grids Examined: 1
 Avg Area of Grid: 8099
 Tot Area Examined: 8099
 Magnification: 15414X
 Dilution Factor: 1:500

Strc.	Grid Op	Type c, a	Structure f, b, c, m	Length Microns	Width Microns
36		c	f	6.50	0.10
37		c	f	2.50	0.10
38		c	f	2.50	0.10
39		c	f	3.50	0.10
40		c	m	5.00	2.50
41		c	f	2.50	0.10
42		c	f	8.50	0.10
43		c	f	5.50	0.10
44		c	f	2.20	0.10
45		c	f	5.00	0.10
46		c	f	7.50	0.10
47		c	f	1.00	0.10
48		c	f	1.20	0.10
49		c	f	7.00	0.10
50		c	f	2.50	0.10
51		c	f	8.50	0.10
52		c	f	6.80	0.10
53		c	f	2.50	0.10
54		c	f	8.00	0.10
55		c	f	3.20	0.10
56		c	f	3.50	0.10
57		c	f	4.00	0.10
58		c	f	2.20	0.10
59		c	f	4.20	0.10
60		c	b	8.50	0.20
61		c	m	7.00	2.50
62		c	f	4.80	0.10
63		c	f	1.50	0.10
64		c	f	3.80	0.10
65		c	f	2.00	0.10
66		c	f	9.00	0.10
67		c	b	4.50	0.20
68		c	b	11.00	0.20
69		c	f	4.20	0.10
70		c	m	2.80	1.50

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Client LAW-Kennesaw
 Sample ID: 11
 MAS Log Number: M2140-11
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: Al Harn
 Reviewed By: H. J. Smith
 Client Proj/ref: A88120.18

Sample Area 1.000 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 1
 Grids Examined: 1
 Avg Area of Grid: 8099
 Tot Area Examined: 8099
 Magnification: 15414X
 Dilution Factor: 1:500

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
71		c	f	2.50	0.10
72		c	m	4.50	3.50
73		c	f	7.50	0.10
74		c	f	7.20	0.10
75		c	f	2.20	0.10
76		c	f	4.00	0.10
77		c	b	11.50	0.20
78		c	f	2.50	0.10
79		c	f	2.50	0.10
80		c	b	4.80	0.20
81		c	f	5.50	0.10
82		c	f	5.00	0.10
83		c	m	4.00	3.80
84		c	c	10.00	3.50
85		c	f	5.00	0.10
86		c	f	3.20	0.10
87		c	f	12.00	0.10
88		c	f	22.00	0.10
89		c	f	3.00	0.10
90		c	f	5.50	0.10
91		c	f	28.00	0.10
92		c	f	12.00	0.10
93		c	f	8.00	0.10
94		c	f	4.00	0.10
95		c	m	9.00	3.50
96		c	f	3.00	0.10
97		c	f	2.20	0.10
98		c	c	7.50	3.50
99		c	f	1.80	0.10
100		c	f	2.50	0.10
101		c	f	10.50	0.10
102		c	m	3.80	3.00
103		c	f	11.00	0.10
104		c	f	4.50	0.10
105		c	f	3.50	0.10

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Client LAW-Kennesaw
 Sample ID: 11
 MAS Log Number: M2140-11
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: John H. Harnett
 Reviewed By: H. Harnett
 Client Proj/ref: A88120.18

Sample Area 1.000 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 1
 Grids Examined: 1
 Avg Area of Grid: 8099
 Tot Area Examined: 8099
 Magnification: 15414X
 Dilution Factor: 1:500

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
106		c	f	7.50	0.10
107		c	c	3.50	2.40
108		c	m	3.00	2.50
109		c	f	4.50	0.10
110		c	b	3.50	0.20
111		c	f	2.50	0.10
112		c	f	3.50	0.10
113		c	f	3.00	0.10
114		c	f	4.00	0.10
115		c	f	4.00	0.10
116		c	f	8.00	0.10
117		c	f	1.80	0.10
118		c	f	6.00	0.10
119		c	f	3.50	0.10
120		c	b	5.00	0.30
121		c	f	1.50	0.10
122		c	f	1.80	0.10
123		c	f	2.50	0.10
124		c	f	2.80	0.10

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TEM ASBESTOS ANALYSIS REPORT

Client	LAW-Kennesaw	Sample Area	1.000 sq ft
Sample ID:	12	Filter Type:	47MM
MAS Log Number:	M2140-12	Filter Area:	1.34E+009
Sample Received:	01-12-89	Grid Openings:	8
Sample Due Date:		Grids Examined:	2
Type Analysis:	DUST	Avg Area of Grid:	8638
Microscopist:	<i>W. P. Smith</i>	Tot Area Examined:	69104
Reviewed By:	<i>C. H. Hesse</i>	Magnification:	15414X
Client Proj/ref:	A88120.18	Dilution Factor:	1:200

	Area Examined		Structures	
	< 5 um	>= 5 um	< 5 um	>= 5 um
No. Free Chrysotile Fibers:	60	18	2.327E+08	6.981E+07
No. of Chrysotile Bundles:	5	2	1.939E+07	7.756E+06
No. of Chrysotile Clusters:	3	0	1.163E+07	0.000E+00
No. of Chrysotile Matrices:	11	1	4.266E+07	3.878E+06
No. Free Amphibole Fibers:	0	0	0.000E+00	0.000E+00
No. of Amphibole Bundles:	0	0	0.000E+00	0.000E+00
No. of Amphibole Clusters:	0	0	0.000E+00	0.000E+00
No. of Amphibole Matrices:	0	0	0.000E+00	0.000E+00
Total Asbestos Structures/1 sq ft (All) : 3.878E+08				
Total Asbestos Structures/1 sq ft (>= 5 um): 8.144E+07				

Comments:

* The Detection Limit is calculated on the probability of analyzing one asbestos fiber or structure in the total area examined.

* 0.000 display = Below Detection Limit

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Client LAW-Kennesaw
 Sample ID: 12
 MAS Log Number: M2140-12
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: *W. P. Smith*
 Reviewed By: *Al. H. H. H.*
 Client Proj/ref: A88120.18

Sample Area 1.000 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 8
 Grids Examined: 2
 Avg Area of Grid: 8638
 Tot Area Examined: 69104
 Magnification: 15414X
 Dilution Factor: 1:200

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
1	1-1	c	b	1.70	0.15
2		c	m	1.80	1.00
3		c	f	2.50	0.10
4		c	f	1.80	0.10
5		c	f	5.00	0.10
6		c	f	1.30	0.10
7		c	f	3.00	0.15
8		c	b	1.70	0.20
9		c	f	1.00	0.10
10		c	f	1.90	0.10
11	1-2	c	f	6.50	0.10
12		c	f	2.00	0.10
13		c	f	1.30	0.10
14		c	f	24.00	0.10
15		c	f	1.00	0.10
16		c	m	4.00	1.00
17		c	f	4.00	0.20
18		c	f	4.50	0.10
19		c	f	6.50	0.10
20		c	f	32.00	0.10
21		c	m	1.00	0.30
22		c	m	4.50	1.50
23	1-3	c	f	1.00	0.10
24		c	f	0.80	0.05
25		c	b	3.50	0.15
26		c	f	3.50	0.10
27		c	f	1.10	0.10
28		c	b	14.00	0.60
29		c	f	3.50	0.10
30		c	f	0.80	0.05
31		c	f	3.00	0.10
32		c	m	0.90	0.40
33		c	f	0.80	0.05
34		c	f	9.00	0.10
35		c	f	20.00	0.20

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Client LAW-Kennesaw
 Sample ID: 12
 MAS Log Number: M2140-12
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: *W.P. Smith*
 Reviewed By: *Al Harrison*
 Client Proj/ref: A88120.18

Sample Area 1.000 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 8
 Grids Examined: 2
 Avg Area of Grid: 8638
 Tot Area Examined: 69104
 Magnification: 15414X
 Dilution Factor: 1:200

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
36		c	f	1.50	0.15
37		c	f	1.20	0.10
38		c	b	4.50	0.40
39		c	f	5.10	0.10
40		c	f	1.00	0.05
41	1-4	c	f	4.50	0.20
42		c	c	3.50	0.80
43		c	m	1.30	0.60
44		c	f	12.00	0.15
45		c	m	2.00	0.60
46		c	f	6.00	0.20
47		c	c	2.00	0.60
48		c	f	0.80	0.10
49		c	f	9.00	0.20
50		c	f	1.90	0.15
51		c	f	1.40	0.15
52	1-5	c	f	0.80	0.10
53		c	f	1.20	0.10
54		c	b	1.20	0.20
55		c	c	1.50	0.30
56		c	f	0.80	0.10
57		c	f	30.00	0.15
58	2-1	c	f	1.30	0.10
59		c	f	4.00	0.15
60		c	f	1.80	0.10
61		c	f	1.20	0.15
62		c	f	1.90	0.10
63		c	f	40.00	0.15
64		c	f	1.00	0.05
65		c	f	3.50	0.10
66		c	f	4.00	0.10
67		c	f	1.00	0.05
68		c	f	1.20	0.10
69		c	f	1.40	0.05
70		c	f	2.00	0.10

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Client LAW-Kennesaw
 Sample ID: 12
 MAS Log Number: M2140-12
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: W. P. Smith
 Reviewed By: W. P. Smith
 Client Proj/ref: A88120.18

Sample Area 1.000 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 8
 Grids Examined: 2
 Avg Area of Grid: 8638
 Tot Area Examined: 69104
 Magnification: 15414X
 Dilution Factor: 1:200

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
71		c	f	6.00	0.10
72		c	f	3.50	0.10
73		c	f	1.50	0.10
74		c	f	1.50	0.20
75	2-2	c	f	2.20	0.10
76		c	f	0.80	0.10
77		c	f	1.20	0.10
78		c	f	0.90	0.10
79		c	f	4.00	0.10
80		c	m	2.00	0.40
81		c	b	5.50	0.30
82		c	f	2.20	0.10
83	2-3	c	m	2.00	0.30
84		c	f	0.80	0.10
85		c	m	1.20	0.05
86		c	f	29.00	0.10
87		c	f	2.50	0.10
88		c	f	8.50	0.20
89		c	f	2.10	0.15
90		c	f	2.20	0.20
91		c	f	1.90	0.10
92		c	f	1.00	0.10
93		c	f	1.50	0.10
94		c	f	1.00	0.10
95		c	f	1.00	0.10
96		c	m	4.00	0.30
97		c	f	1.50	0.15
98		c	f	7.50	0.20
99		c	f	23.00	0.20
100		c	m	13.00	0.20

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TEM ASBESTOS ANALYSIS REPORT

Client	LAW-Kennesaw	Sample Area	1.000 sq ft
Sample ID:	13	Filter Type:	47MM
MAS Log Number:	M2140-13	Filter Area:	1.34E+009
Sample Received:	01-12-89	Grid Openings:	5
Sample Due Date:		Grids Examined:	2
Type Analysis:	DUST	Avg Area of Grid:	8464
Microscopist:	<i>Al Harrison</i>	Tot Area Examined:	42320
Reviewed By:	<i>W. G. Smith</i>	Magnification:	15414X
Client Proj/ref:	A88120.18	Dilution Factor:	1:200

	Area Examined		Structures	
	< 5 um	>= 5 um	< 5 um	>= 5 um
No. Free Chrysotile Fibers:	63	8	3.990E+08	5.066E+07
No. of Chrysotile Bundles:	6	2	3.800E+07	1.267E+07
No. of Chrysotile Clusters:	2	1	1.267E+07	6.333E+06
No. of Chrysotile Matrices:	9	3	5.699E+07	1.900E+07
No. Free Amphibole Fibers:	0	0	0.000E+00	0.000E+00
No. of Amphibole Bundles:	0	0	0.000E+00	0.000E+00
No. of Amphibole Clusters:	0	0	0.000E+00	0.000E+00
No. of Amphibole Matrices:	0	0	0.000E+00	0.000E+00
Total Asbestos Structures/1 sq ft (All) : 5.953E+08				
Total Asbestos Structures/1 sq ft (>= 5 um): 8.866E+07				

Comments:

* The Detection Limit is calculated on the probability of analyzing one asbestos fiber or structure in the total area examined.

* 0.000 display = Below Detection Limit

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Client LAW-Kennesaw
 Sample ID: 13
 MAS Log Number: M2140-13
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: *Al H. H. H.*
 Reviewed By: *H. H. H.*
 Client Proj/ref: A88120.18

Sample Area 1.000 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 5
 Grids Examined: 2
 Avg Area of Grid: 8464
 Tot Area Examined: 42320
 Magnification: 15414X
 Dilution Factor: 1:200

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
1	1-1	c	f	2.50	0.10
2		c	f	6.50	0.10
3		c	m	4.50	3.50
4		c	f	2.50	0.10
5		c	f	1.80	0.10
6		c	c	12.00	4.50
7		c	m	5.00	2.80
8		c	f	1.50	0.10
9		c	f	1.20	0.10
10		c	m	2.80	1.60
11		c	f	1.50	0.10
12		c	m	4.50	3.80
13		c	f	3.00	0.10
14		c	f	1.80	0.10
15		c	m	2.20	0.80
16		c	m	5.00	3.80
17		c	f	3.80	0.10
18		c	f	1.50	0.10
19		c	f	2.50	0.10
20		c	f	4.50	0.10
21		c	m	18.00	9.50
22		c	f	1.50	0.10
23		c	f	4.50	0.10
24		c	f	1.00	0.10
25	1-2	c	f	2.50	0.10
26		c	f	1.80	0.10
27		c	f	2.50	0.10
28		c	b	2.80	0.20
29		c	f	2.40	0.10
30		c	f	2.20	0.10
31		c	f	3.50	0.10
32		c	f	2.20	0.10
33		c	b	3.00	0.10
34	1-3	c	f	11.00	0.10
35		c	f	2.80	0.10

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Client LAW-Kennesaw
 Sample ID: 13
 MAS Log Number: M2140-13
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: *Al Hama*
 Reviewed By: *A. Hama*
 Client Proj/ref: A88120.18

Sample Area 1.000 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 5
 Grids Examined: 2
 Avg Area of Grid: 8464
 Tot Area Examined: 42320
 Magnification: 15414X
 Dilution Factor: 1:200

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
36		c	b	8.00	0.20
37		c	f	6.00	0.10
38		c	f	2.50	0.10
39		c	f	2.80	0.10
40		c	f	1.80	0.10
41		c	c	4.50	2.50
42		c	f	1.00	0.10
43		c	f	1.20	0.10
44		c	f	4.00	0.10
45		c	m	3.50	3.00
46		c	f	1.50	0.10
47		c	f	3.00	0.10
48		c	f	3.40	0.10
49		c	b	2.50	0.20
50		c	f	5.20	0.10
51		c	f	1.20	0.10
52		c	f	2.00	0.10
53		c	f	2.20	0.10
54		c	b	2.80	0.20
55		c	m	4.50	2.50
56		c	f	5.50	0.10
57		c	f	2.80	0.10
58		c	f	1.50	0.10
59		c	f	2.60	0.10
60		c	f	1.80	0.10
61	2-1	c	f	1.50	0.10
62		c	f	3.50	0.10
63		c	f	3.00	0.10
64		c	f	3.80	0.10
65		c	f	1.50	0.10
66		c	f	1.20	0.10
67		c	f	3.00	0.10
68		c	f	2.50	0.10
69		c	c	4.50	2.50
70		c	b	2.50	0.20

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Client LAW-Kennesaw
 Sample ID: 13
 MAS Log Number: M2140-13
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: Al Haysen
 Reviewed By: Al Haysen
 Client Proj/ref: A88420.18

Sample Area 1.000 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 5
 Grids Examined: 2
 Avg Area of Grid: 8464
 Tot Area Examined: 42320
 Magnification: 15414X
 Dilution Factor: 1:200

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
71		c	f	3.50	0.10
72		c	b	8.50	0.30
73		c	m	3.20	1.50
74		c	f	4.50	0.10
75	2-2	c	f	1.20	0.10
76		c	f	2.20	0.10
77		c	f	1.80	0.10
78		c	f	2.00	0.10
79		c	f	1.50	0.10
80		c	f	3.50	0.10
81		c	b	3.50	0.40
82		c	f	3.20	0.10
83		c	f	6.00	0.10
84		c	f	2.20	0.10
85		c	f	3.20	0.10
86		c	f	1.00	0.10
87		c	m	1.50	0.50
88		c	f	12.00	0.10
89		c	f	1.80	0.10
90		c	f	3.50	0.10
91		c	f	2.50	0.10
92		c	f	7.50	0.10
93		c	f	2.50	0.10
94		c	m	3.50	2.00

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TEM ASBESTOS ANALYSIS REPORT

Client	LAW-Kennesaw	Sample Area	1.000 sq ft
Sample ID:	14	Filter Type:	47MM
MAS Log Number:	M2140-14	Filter Area:	1.34E+009
Sample Received:	01-12-89	Grid Openings:	10
Sample Due Date:		Grids Examined:	2
Type Analysis:	DUST	Avg Area of Grid:	7965
Microscopist:	<i>Jeff Harrison</i>	Tot Area Examined:	79650
Reviewed By:	<i>H. Harrison</i>	Magnification:	15414X
Client Proj/ref:	A88/20.18	Dilution Factor:	1:50

	Area Examined		Structures	
	< 5 um	>= 5 um	< 5 um	>= 5 um
No. Free Chrysotile Fibers:	38	16	3.196E+07	1.346E+07
No. of Chrysotile Bundles:	2	2	1.682E+06	1.682E+06
No. of Chrysotile Clusters:	2	1	1.682E+06	8.412E+05
No. of Chrysotile Matrices:	1	0	8.412E+05	0.000E+00
No. Free Amphibole Fibers:	0	0	0.000E+00	0.000E+00
No. of Amphibole Bundles:	0	0	0.000E+00	0.000E+00
No. of Amphibole Clusters:	0	0	0.000E+00	0.000E+00
No. of Amphibole Matrices:	0	0	0.000E+00	0.000E+00
Total Asbestos Structures/1 sq ft (All) : 5.215E+07				
Total Asbestos Structures/1 sq ft (>= 5 um): 1.598E+07				

Comments:

* The Detection Limit is calculated on the probability of analyzing one asbestos fiber or structure in the total area examined.

* 0.000 display = Below Detection Limit

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Client LAW-Kennesaw
 Sample ID: 14
 MAS Log Number: M2140-14
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: Al Hayman
 Reviewed By: H. Yamatsu
 Client Proj/ref: A88120.18

Sample Area 1.000 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 10
 Grids Examined: 2
 Avg Area of Grid: 7965
 Tot Area Examined: 79650
 Magnification: 15414X
 Dilution Factor: 1:50

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
1	1-1	c	f	8.50	0.10
2		c	f	1.20	0.10
3		c	f	2.00	0.10
4		c	f	4.80	0.10
5		c	f	2.50	0.10
6		c	f	2.80	0.10
7		c	f	8.50	0.10
8	1-2	c	f	2.00	0.10
9		c	f	2.80	0.10
10		c	f	5.50	0.10
11		c	f	5.80	0.10
12	1-3	c	f	2.50	0.10
13		c	c	3.00	1.50
14		c	m	3.80	2.50
15		c	f	6.50	0.10
16	1-4	c	f	2.50	0.10
17		c	f	3.00	0.10
18		c	f	1.20	0.10
19		c	f	2.00	0.10
20		c	f	2.50	0.10
21		c	f	2.80	0.10
22		c	f	1.80	0.10
23	1-5	c	f	2.00	0.10
24		c	f	1.00	0.10
25		c	f	3.00	0.10
26		c	f	2.50	0.10
27		c	f	4.50	0.10
28		c	f	1.80	0.10
29	2-1	c	f	7.50	0.10
30		c	b	2.50	0.20
31		c	b	3.00	0.20
32		c	b	5.50	0.30
33		c	f	3.50	0.10
34		c	f	5.00	0.10
35	2-2	c	f	8.00	0.10

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Client LAW-Kennesaw
 Sample ID: 14
 MAS Log Number: M2140-14
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: Allyson
 Reviewed By: Robert
 Client Proj/ref: A88420.18

Sample Area 1.000 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 10
 Grids Examined: 2
 Avg Area of Grid: 7965
 Tot Area Examined: 79650
 Magnification: 15414X
 Dilution Factor: 1:50

Struc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
36		c	c	4.00	2.00
37		c	f	4.50	0.10
38		c	f	2.00	0.10
39		c	f	1.50	0.10
40	2-3	c	f	6.00	0.10
41		c	f	5.50	0.10
42		c	f	2.80	0.10
43		c	f	2.20	0.10
44		c	f	4.50	0.10
45	2-4	c	f	3.00	0.10
46		c	f	2.20	0.10
47		c	f	6.50	0.10
48		c	f	6.80	0.10
49		c	f	2.80	0.10
50		c	f	4.50	0.10
51	2-5	c	f	12.00	0.10
52		c	f	2.50	0.10
53		c	f	6.50	0.10
54		c	f	7.50	0.10
55		c	f	3.50	0.10
56		c	f	2.20	0.10
57		c	f	6.00	0.10
58		c	f	2.20	0.10
59		c	f	4.00	0.10
60		c	b	9.50	0.20
61		c	c	11.00	7.00
62		c	f	2.00	0.10

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TEM ASBESTOS ANALYSIS REPORT

Client	LAW-Kennesaw	Sample Area	0.375 sq ft
Sample ID:	15	Filter Type:	47MM
MAS Log Number:	M2140-15	Filter Area:	1.34E+009
Sample Received:	01-12-89	Grid Openings:	2
Sample Due Date:		Grids Examined:	2
Type Analysis:	DUST	Avg Area of Grid:	8711
Microscopist:	<i>W.P. Smith</i>	Tot Area Examined:	17422
Reviewed By:	<i>W.P. Smith</i>	Magnification:	15414X
Client Proj/ref:	A88120.18	Dilution Factor:	1:1000

	Area Examined		Structures	
	< 5 um	>= 5 um	< 5 um	>= 5 um
No. Free Chrysotile Fibers:	13	1	2.666E+09	2.051E+08
No. of Chrysotile Bundles:	0	0	0.000E+00	0.000E+00
No. of Chrysotile Clusters:	2	1	4.102E+08	2.051E+08
No. of Chrysotile Matrices:	27	49	5.538E+09	1.005E+10
No. Free Amphibole Fibers:	0	0	0.000E+00	0.000E+00
No. of Amphibole Bundles:	0	0	0.000E+00	0.000E+00
No. of Amphibole Clusters:	0	0	0.000E+00	0.000E+00
No. of Amphibole Matrices:	0	0	0.000E+00	0.000E+00

Total Asbestos Structures/1 sq ft (All) : 1.907E+10
 Total Asbestos Structures/1 sq ft (>= 5 um): 1.046E+10

Comments:

* The Detection Limit is calculated on the probability of analyzing one asbestos fiber or structure in the total area examined.

* 0.000 display = Below Detection Limit

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Client LAW-Kennesaw
 Sample ID: 15
 MAS Log Number: M2140-15
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: *W.P. Smith*
 Reviewed By: *Al. Harmon*
 Client Proj/ref: A88120.18

Sample Area 0.375 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 2
 Grids Examined: 2
 Avg Area of Grid: 8711
 Tot Area Examined: 17422
 Magnification: 15414X
 Dilution Factor: 1:1000

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
1	1-1	c	m	8.50	1.00
2		c	m	7.00	0.70
3		c	m	7.00	3.00
4		c	m	12.00	0.60
5		c	m	7.00	7.00
6		c	m	26.00	0.10
7		c	m	14.00	5.00
8		c	m	8.50	1.00
9		c	m	5.00	2.00
10		c	c	1.20	0.80
11		c	f	3.50	0.10
12		c	m	7.50	2.00
13		c	m	3.50	2.00
14		c	m	9.50	2.50
15		c	m	30.00	7.00
16		c	m	3.50	1.00
17		c	m	13.00	1.50
18		c	m	28.00	0.60
19		c	m	25.00	1.20
20		c	m	14.00	7.00
21		c	m	2.20	0.40
22		c	m	5.00	1.00
23		c	m	4.00	1.00
24		c	m	10.00	1.00
25		c	m	25.00	25.00
26		c	f	7.00	0.20
27		c	f	3.00	0.20
28		c	m	18.00	6.00
29		c	m	5.00	1.00
30		c	m	27.00	3.50
31		c	m	1.50	0.30
32		c	m	1.20	0.30
33		c	m	4.00	1.00
34		c	m	7.50	7.50
35		c	m	20.00	4.00

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Client LAW-Kennesaw
 Sample ID: 15
 MAS Log Number: M2140-15
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: *W. P. Smith*
 Reviewed By: *Al Harrison*
 Client Proj/ref: A88120.18

Sample Area 0.375 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 2
 Grids Examined: 2
 Avg Area of Grid: 8711
 Tot Area Examined: 17422
 Magnification: 15414X
 Dilution Factor: 1:1000

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
36		c	m	10.00	6.00
37		c	m	4.00	1.00
38		c	m	4.00	3.50
39		c	m	2.00	1.00
40		c	m	3.00	0.60
41		c	m	14.00	7.00
42		c	m	13.00	2.00
43		c	m	21.00	3.50
44		c	m	4.00	2.00
45		c	m	1.30	0.30
46		c	m	12.00	2.00
47		c	m	4.00	3.50
48		c	m	11.00	2.00
49		c	m	10.00	2.00
50	2-1	c	m	3.50	0.80
51		c	m	9.50	2.00
52		c	m	5.50	2.00
53		c	m	10.50	2.00
54		c	m	35.00	17.00
55		c	f	1.10	0.10
56		c	m	4.50	1.00
57		c	m	7.00	3.50
58		c	m	1.90	0.60
59		c	c	4.00	0.15
60		c	m	5.00	0.60
61		c	m	16.00	5.00
62		c	f	2.50	0.10
63		c	f	1.20	0.10
64		c	m	40.00	7.00
65		c	m	4.00	1.00
66		c	m	14.00	3.00
67		c	f	1.90	0.10
68		c	f	0.80	0.10
69		c	m	7.00	0.60
70		c	m	4.50	1.50

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Client LAW-Kennesaw
 Sample ID: 15
 MAS Log Number: M2140-15
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: *W.P. Smith*
 Reviewed By: *Al Harman*
 Client Proj/ref: A88120.18

Sample Area 0.375 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 2
 Grids Examined: 2
 Avg Area of Grid: 8711
 Tot Area Examined: 17422
 Magnification: 15414X
 Dilution Factor: 1:1000

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
71		c	m	11.00	10.00
72		c	f	2.00	0.10
73		c	m	4.00	2.00
74		c	m	1.00	0.20
75		c	m	15.00	5.00
76		c	m	3.50	2.50
77		c	m	20.00	3.00
78		c	f	0.80	0.10
79		c	m	2.00	1.50
80		c	m	4.00	0.40
81		c	f	3.50	0.10
82		c	c	7.00	2.00
83		c	m	3.00	0.70
84		c	f	0.80	0.10
85		c	m	1.20	0.40
86		c	m	20.00	7.00
87		c	m	7.00	5.00
88		c	m	8.00	2.00
89		c	f	1.10	0.10
90		c	m	16.00	0.40
91		c	m	22.00	20.00
92		c	m	1.50	0.10
93		c	f	0.80	0.10

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TEM ASBESTOS ANALYSIS REPORT

Client	LAW-Kennesaw	Sample Area	1.000 sq ft
Sample ID:	16	Filter Type:	47MM
MAS Log Number:	M2140-16	Filter Area:	1.34E+009
Sample Received:	01-12-89	Grid Openings:	10
Sample Due Date:		Grids Examined:	2
Type Analysis:	DUST	Avg Area of Grid:	9248
Microscopist:	<i>W. P. Smith</i>	Tot Area Examined:	92480
Reviewed By:	<i>W. P. Smith</i>	Magnification:	15414X
Client Proj/réf:	A88120.18	Dilution Factor:	1:50

	Area Examined		Structures	
	< 5 um	>= 5 um	< 5 um	>= 5 um
No. Free Chrysotile Fibers:	25	2	1.811E+07	1.449E+06
No. of Chrysotile Bundles:	5	1	3.622E+06	7.245E+05
No. of Chrysotile Clusters:	1	0	7.245E+05	0.000E+00
No. of Chrysotile Matrices:	3	2	2.173E+06	1.449E+06
No. Free Amphibole Fibers:	0	0	0.000E+00	0.000E+00
No. of Amphibole Bundles:	0	0	0.000E+00	0.000E+00
No. of Amphibole Clusters:	0	0	0.000E+00	0.000E+00
No. of Amphibole Matrices:	0	0	0.000E+00	0.000E+00
Total Asbestos Structures/1 sq ft (All)			:	2.825E+07
Total Asbestos Structures/1 sq ft (>= 5 um):			:	3.622E+06

Comments:

* The Detection Limit is calculated on the probability of analyzing one asbestos fiber or structure in the total area examined.

* 0.000 display = Below Detection Limit

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Client LAW-Kennesaw
 Sample ID: 16
 MAS Log Number: M2140-16
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: *W. R. Smith*
 Reviewed By: *Ol. Harrison*
 Client Proj/ref: A88120.18

Sample Area 1.000 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 10
 Grids Examined: 2
 Avg Area of Grid: 9248
 Tot Area Examined: 92480
 Magnification: 15414X
 Dilution Factor: 1:50

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
1	1-1	c	m	14.00	1.00
2		c	f	2.40	0.10
3		c	f	1.40	0.10
4		c	f	0.60	0.05
5		c	f	2.30	0.10
6		c	b	1.90	0.30
7	1-2	c	f	1.40	0.10
8		c	b	1.40	0.15
9		c	f	1.50	0.10
10		c	f	3.50	0.30
11		c	f	1.30	0.10
12	1-3	c	f	3.20	0.10
13		c	f	1.80	0.10
14		c	b	8.50	0.50
15	1-4	c	m	3.80	1.60
16		c	f	1.40	0.15
17		c	f	1.50	0.10
18		c	f	3.40	0.10
19		c	f	3.40	0.15
20	1-5	c	f	1.60	0.10
21		c	f	1.40	0.10
22		c	f	1.00	0.15
23	2-1	c	f	1.60	0.15
24		c	f	1.60	0.20
25	2-2	c	f	2.80	0.15
26		c	f	1.00	0.10
27		c	f	1.00	0.10
28		c	m	1.50	0.20
29	2-3	c	b	2.50	0.30
30		c	c	3.50	0.60
31		c	f	4.30	0.10
32		c	m	2.70	0.60
33		c	f	3.50	0.15
34		c	b	2.40	0.20
35	2-5	c	m	6.00	1.40

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Client	LAW-Kennesaw	Sample Area	1.000 sq ft
Sample ID:	16	Filter Type:	47MM
MAS Log Number:	M2140-16	Filter Area:	1.34E+009
Sample Received:	01-12-89	Grid Openings:	10
Sample Due Date:		Grids Examined:	2
Type Analysis:	DUST	Avg Area of Grid:	9248
Microscopist:	<i>W.P. Smith</i>	Tot Area Examined:	92480
Reviewed By:	<i>Al. H. H. H.</i>	Magnification:	15414X
Client Proj/ref:	A88120.18	Dilution Factor:	1:50

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
36		c	f	5.50	0.10
37		c	b	3.50	0.15
38		c	f	4.00	0.10
39		c	f	26.00	0.10

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TEM ASBESTOS ANALYSIS REPORT

Client	LAW-Kennesaw	Sample Area	1.000 sq ft
Sample ID:	17	Filter Type:	47MM
MAS Log Number:	M2140-17	Filter Area:	1.34E+009
Sample Received:	01-12-89	Grid Openings:	10
Sample Due Date:		Grids Examined:	2
Type Analysis:	DUST	Avg Area of Grid:	8858
Microscopist:	<i>W.P. Smith</i>	Tot Area Examined:	88580
Reviewed By:	<i>C. H. Harnish</i>	Magnification:	15414X
Client Proj/ref:	A88120.18	Dilution Factor:	1:7

	Area Examined		Structures	
	< 5 um	>= 5 um	< 5 um	>= 5 um
No. Free Chrysotile Fibers:	1	0	1.009E+05	0.000E+00
No. of Chrysotile Bundles:	0	1	0.000E+00	1.009E+05
No. of Chrysotile Clusters:	0	0	0.000E+00	0.000E+00
No. of Chrysotile Matrices:	0	1	0.000E+00	1.009E+05
No. Free Amphibole Fibers:	0	0	0.000E+00	0.000E+00
No. of Amphibole Bundles:	0	0	0.000E+00	0.000E+00
No. of Amphibole Clusters:	0	0	0.000E+00	0.000E+00
No. of Amphibole Matrices:	0	0	0.000E+00	0.000E+00
Total Asbestos Structures/1 sq ft (All)	:		3.026E+05	
Total Asbestos Structures/1 sq ft (>= 5 um):	:		2.017E+05	

Comments:

* The Detection Limit is calculated on the probability of analyzing one asbestos fiber or structure in the total area examined.

* 0.000 display = Below Detection Limit

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Page: 1

Client LAW-Kennesaw
 Sample ID: 17
 MAS Log Number: M2140-17
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: *W.P. Smith*
 Reviewed By: *Q.P. Hassan*
 Client Proj/ref: A88120.18

Sample Area 1.000 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 10
 Grids Examined: 2
 Avg Area of Grid: 8858
 Tot Area Examined: 88580
 Magnification: 15414X
 Dilution Factor: 1:7

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
1	1-2	c	b	17.00	1.40
2	2-3	c	m	5.00	0.30
3	2-4	c	f	3.50	0.20

Materials Analytical Services Inc.
 3597 Parkway Lane, Suite 250
 Norcross, Georgia 30092
 (404) 448-3200

TEM ASBESTOS ANALYSIS REPORT

Client	LAW-Kennesaw	Sample Area	1.000 sq ft
Sample ID:	18	Filter Type:	47MM
MAS Log Number:	M2140-18	Filter Area:	1.34E+009
Sample Received:	01-12-89	Grid Openings:	10
Sample Due Date:		Grids Examined:	2
Type Analysis:	DUST	Avg Area of Grid:	8418
Microscopist:	<i>W.P. Smith</i>	Tot Area Examined:	84180
Reviewed By:	<i>A.P. Harmon</i>	Magnification:	15414X
Client Proj/ref:	A88120.18	Dilution Factor:	1:50

	Area Examined		Structures	
	< 5 um	>= 5 um	< 5 um	>= 5 um
No. Free Chrysotile Fibers:	9	0	7.163E+06	0.000E+00
No. of Chrysotile Bundles:	1	0	7.959E+05	0.000E+00
No. of Chrysotile Clusters:	0	0	0.000E+00	0.000E+00
No. of Chrysotile Matrices:	0	0	0.000E+00	0.000E+00
No. Free Amphibole Fibers:	0	0	0.000E+00	0.000E+00
No. of Amphibole Bundles:	0	0	0.000E+00	0.000E+00
No. of Amphibole Clusters:	0	0	0.000E+00	0.000E+00
No. of Amphibole Matrices:	0	0	0.000E+00	0.000E+00
Total Asbestos Structures/1 sq ft (All)	:		7.959E+06	
Total Asbestos Structures/1 sq ft (>= 5 um):			0.000E+00	

Comments:

* The Detection Limit is calculated on the probability of analyzing one asbestos fiber or structure in the total area examined.

* 0.000 display = Below Detection Limit

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Page: 1

Client LAW-Kennesaw
 Sample ID: 18
 MAS Log Number: M2140-18
 Sample Received: 01-12-89
 Sample Due Date:
 Type Analysis: DUST
 Microscopist: W. P. Smith
 Reviewed By: A. H. Sasser
 Client Proj/ref: A88120.18

Sample Area 1.000 sq ft
 Filter Type: 47MM
 Filter Area: 1.34E+009
 Grid Openings: 10
 Grids Examined: 2
 Avg Area of Grid: 8418
 Tot Area Examined: 84180
 Magnification: 15414X
 Dilution Factor: 1:50

Strc.	Grid Op	Type c,a	Structure f,b,c,m	Length Microns	Width Microns
1	1-1	c	f	1.90	0.10
2	1-2	c	f	2.20	0.10
3	1-3	c	f	1.60	0.10
4	1-5	c	b	1.90	0.30
5	2-1	c	f	1.00	0.10
6	2-3	c	f	1.40	0.10
7		c	f	4.30	0.15
8	2-4	c	f	3.00	0.10
9		c	f	0.60	0.10
10	2-5	c	f	1.50	0.10



MATERIALS
ANALYTICAL
SERVICES

CHAIN-OF-CUSTODY

Company: Law Assoc MAS Job No: M 2140
Contact: Brian Southland Date: 1-12-89
Phone No: 892-3200 Client P.O.: ASH-120.18

TYPE OF ANALYSIS

TEM () Level I () LEVEL II () AHERA ()
WATER () DUST (X) BULK ()

OTHER: _____ Requested T.A.T.: _____

Due Date: _____

Sample Number(s): 2200 Bldg

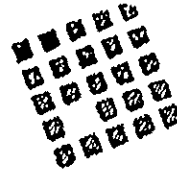
Neos Bldg

- | | |
|-----------------------|-----------------------|
| 1) <u>9th Fl.</u> | 11) <u>4th Fl.</u> |
| 2) <u>9th Fl.</u> | 12) <u>4th Fl.</u> |
| 3) <u>6th Fl.</u> | 13) <u>3rd Fl.</u> |
| 4) <u>6th Fl.</u> | 14) <u>3rd Fl.</u> |
| 5) <u>5th Fl.</u> | 15) <u>Basement</u> |
| 6) <u>5th Fl.</u> | 16) <u>Basement</u> |
| 7) <u>4th Fl.</u> | 17) <u>1st Fl.</u> |
| 8) <u>3rd Fl.</u> | 18) <u>Sew. Elev.</u> |
| 9) <u>2nd Fl.</u> | 19) _____ |
| 10) <u>Main Lobby</u> | 20) _____ |

Samples Received By: P. Miller Date: 2-14-89
Condition of Samples: OK

Sample Preparation: 9. Apache F.B.I. Chem Date: 7-30-90
Sample Analysis: _____ Date: _____
Report(s) Sent By: Mailed / P. Dabbs Date: 10/1/90
Sample(s) Shipped By: Shipped by P. Dabbs Date: 5-16-91
Samples Received By Client: _____

COPY

MATERIALS
ANALYTICAL
SERVICES

CHAIN-OF-CUSTODY

Company: Law Assoc MAS Job No: M 2140
 Contact: Brian Southland Date: 1-12-89
 Phone No: 812-3200 Client P.O.: AS8-120.18

TYPE OF ANALYSIS

TEM () Level I () LEVEL II () AHERA ()
 WATER () DUST (X) BULK ()

OTHER: _____ Requested T.A.T.: _____

Due Date: _____

Sample Number(s): 2200 Bldg2200 Bldg

- | | |
|----------------|----------------|
| 1) 9th Fl. | 11) 4th Fl. |
| 2) 9th Fl. | 12) 4th Fl. |
| 3) 6th Fl. | 13) 3rd Fl. |
| 4) 6th Fl. | 14) 3rd Fl. |
| 5) 5th Fl. | 15) Basement |
| 6) 5th Fl. | 16) Basement |
| 7) 4th Fl. | 17) 1st Fl. |
| 8) 3rd Fl. | 18) Sew. Elev. |
| 9) 2nd Fl. | 19) |
| 10) Main Lobby | 20) |

Samples Received By: P. Miller Date: 1-12-89Condition of Samples: OKSample Preparation: G. Ayala F.B.I. Lab Date: 7-30-90Sample Analysis: Q. Harman W.P. Smith Date: 8-23-90, 8-24-90, 8-27-90, 8-28-90, 8-29-90, 8-30-90, 8-31-90, 9-1-90, 9-2-90Report(s) Sent By: Nicholas Brown Date: 9-24-90

Sample(s) Shipped By: _____ Date: _____

Samples Received By Client: _____